

FIG. 1A

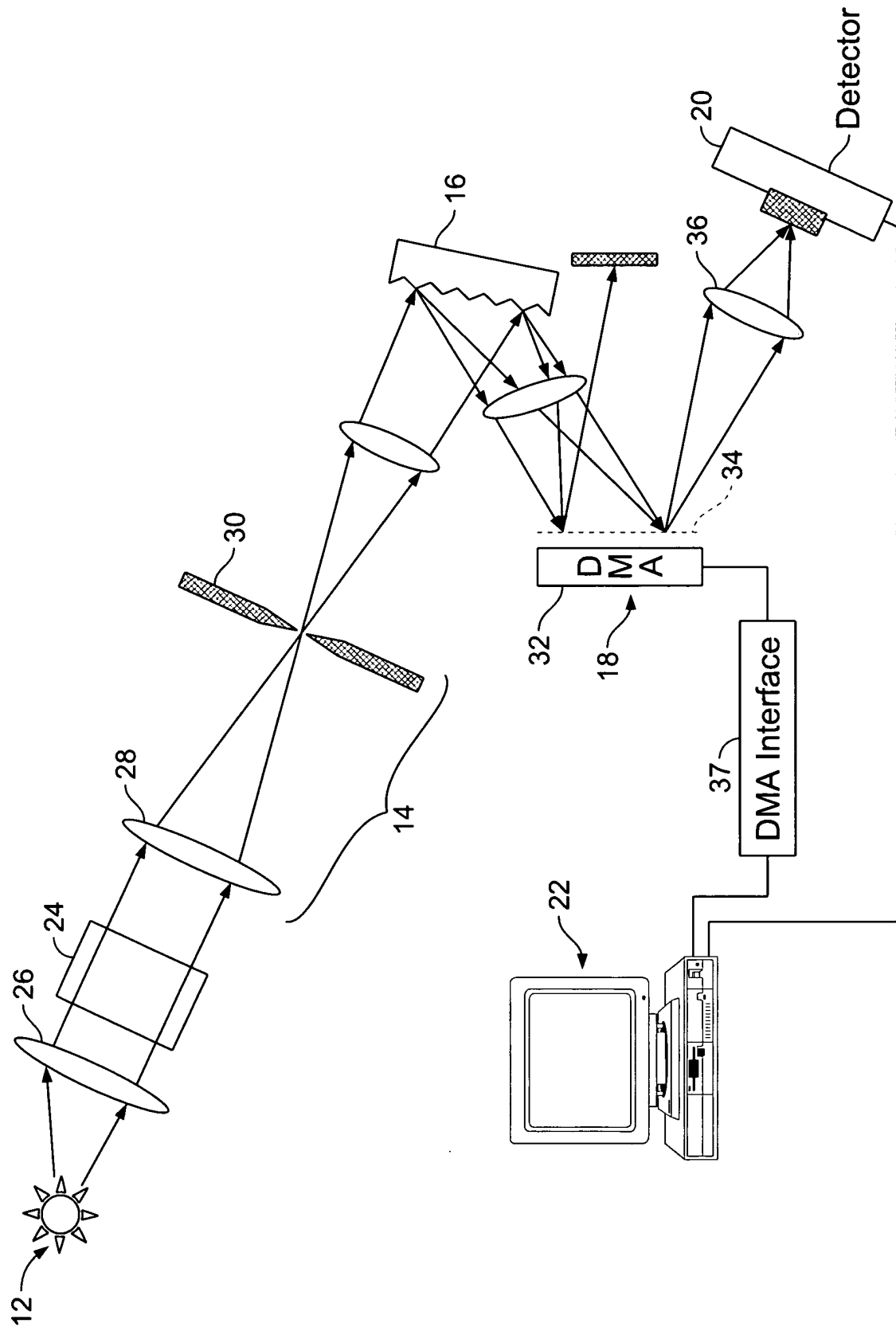


FIG. 1B

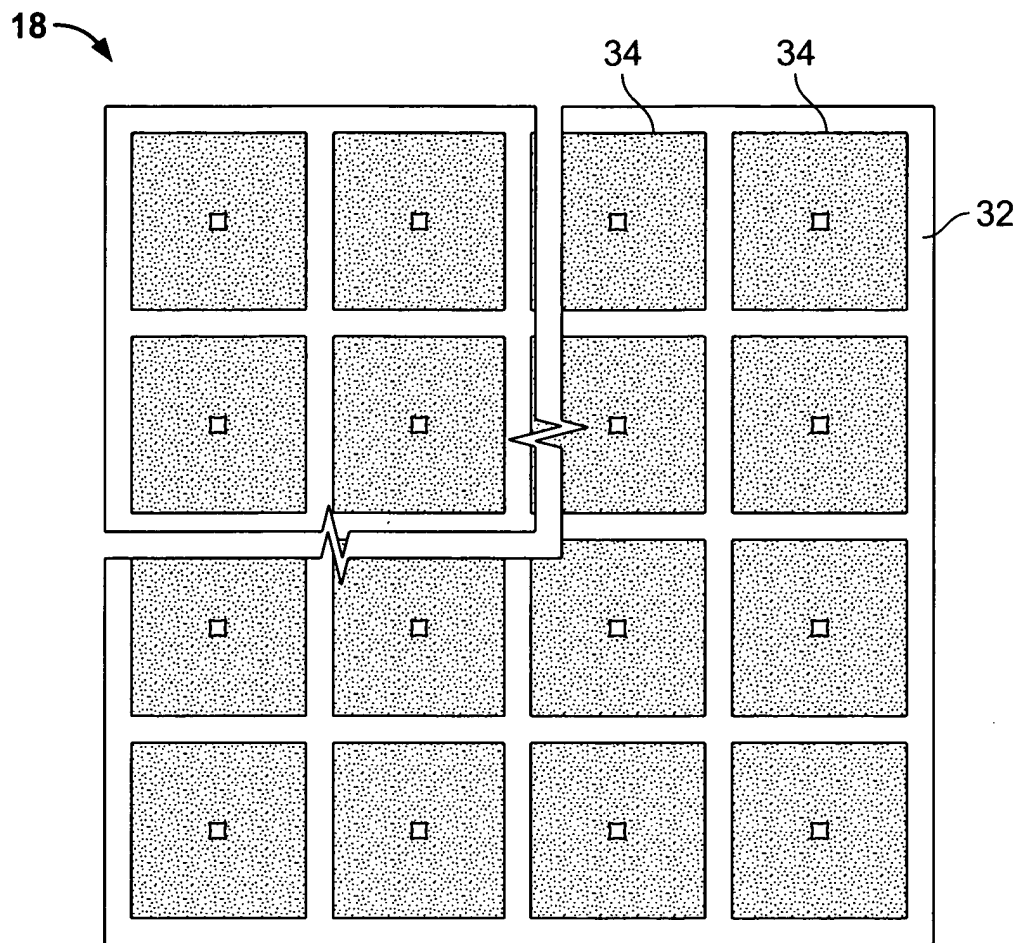


FIG. 2

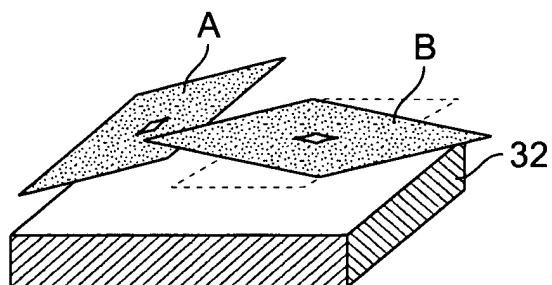


FIG. 3

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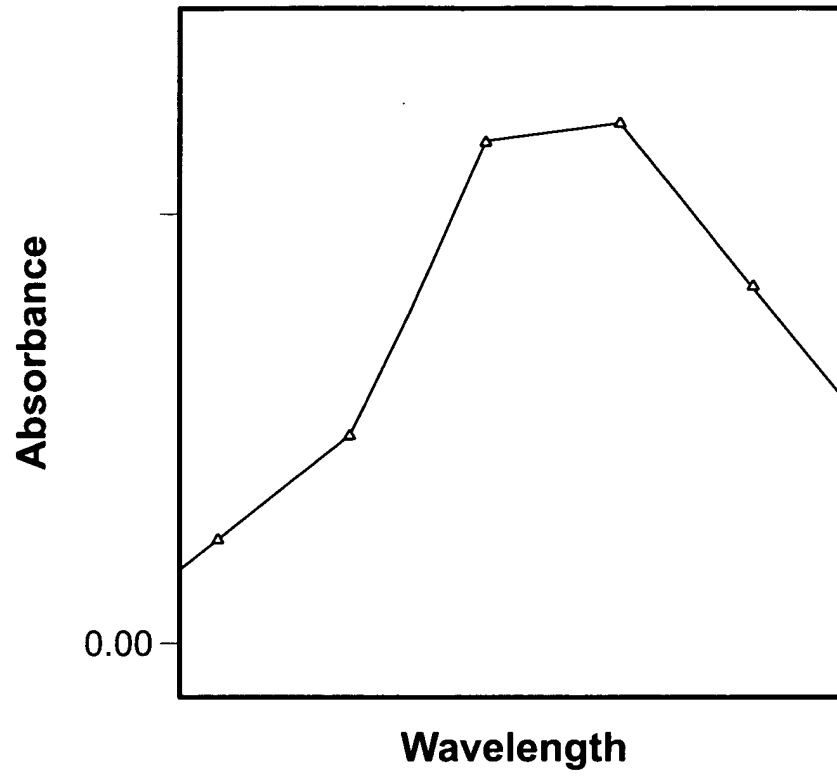


FIG. 4

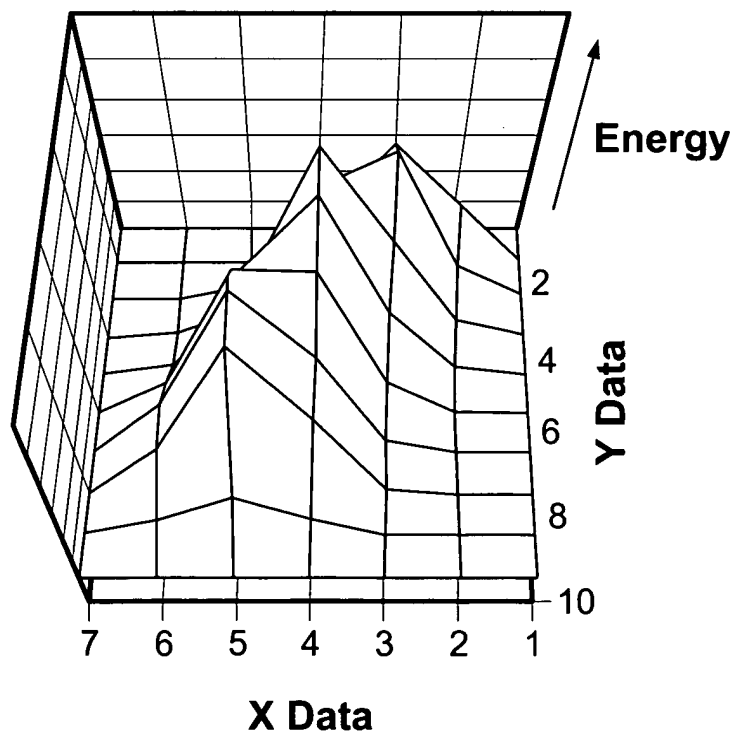


FIG. 5

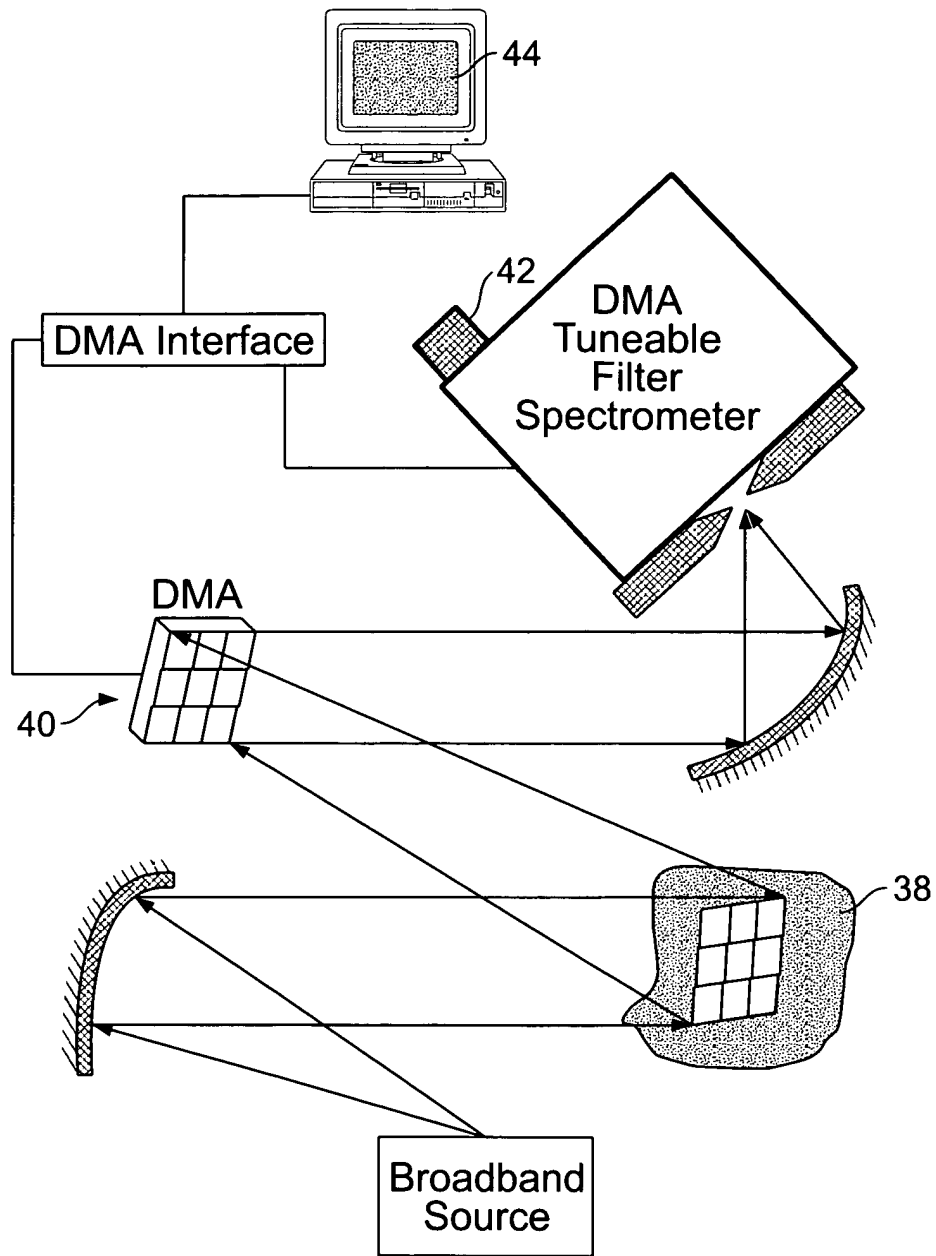


FIG. 6

The Focal Plane of the NIR - DMA Imaging Spectrograph

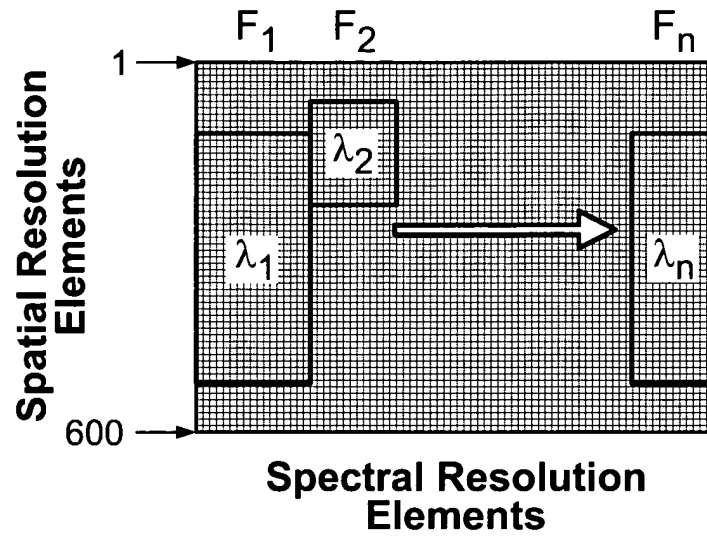


FIG. 6A

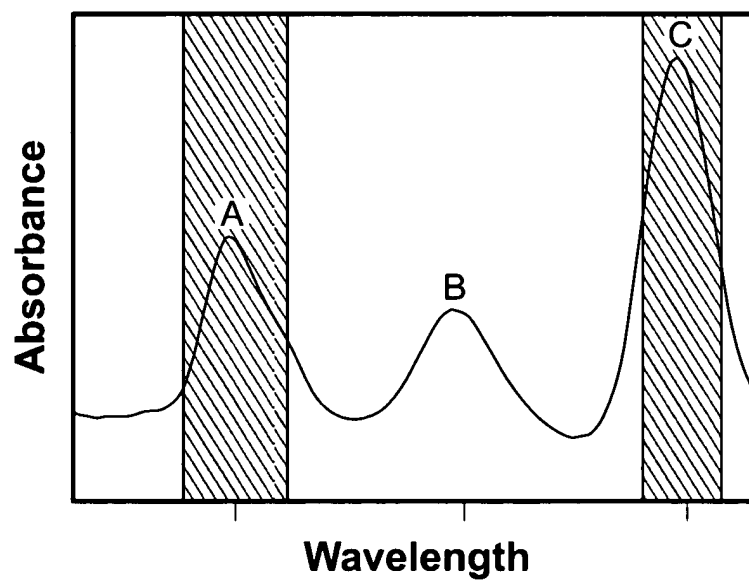


FIG. 7

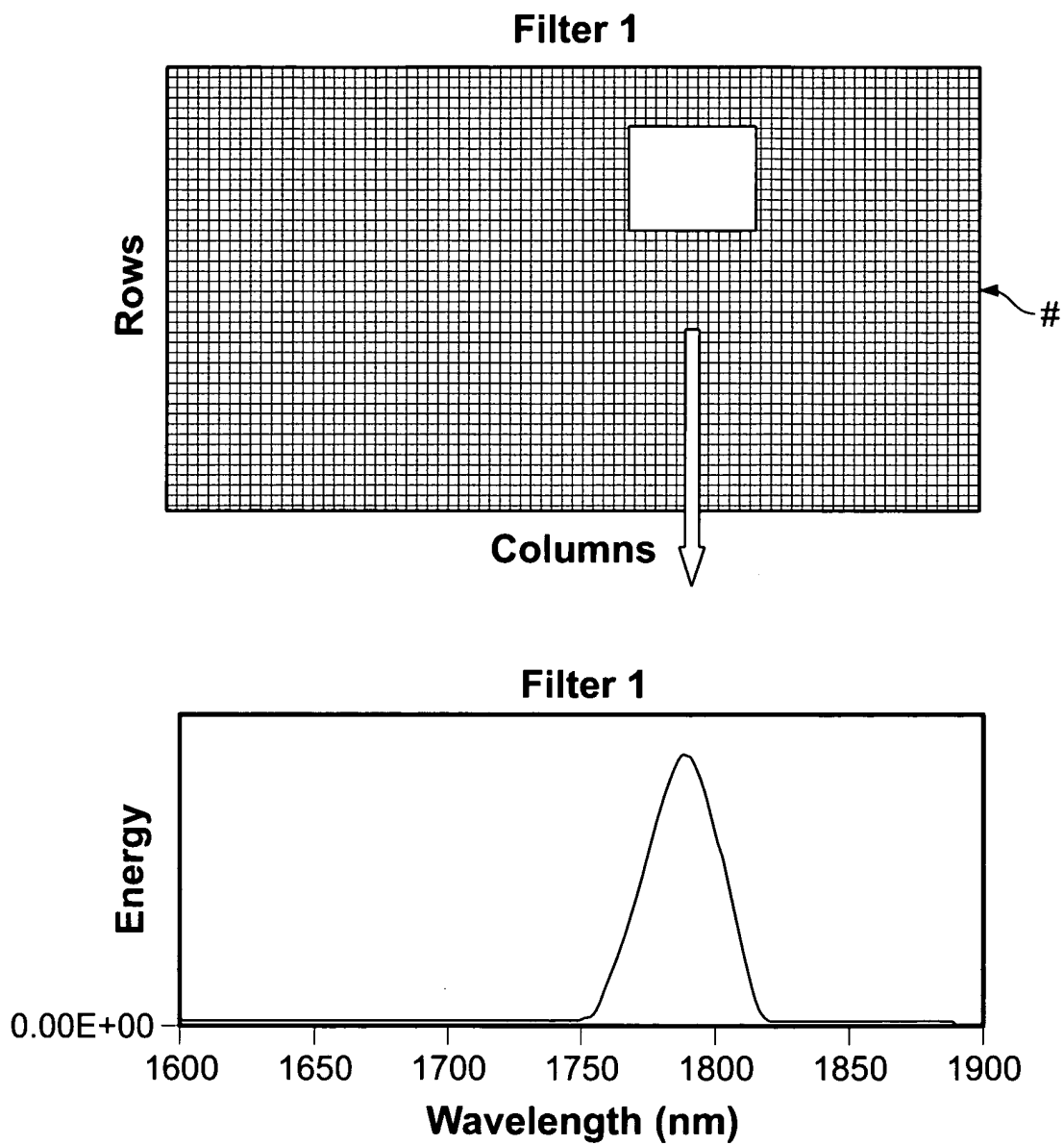
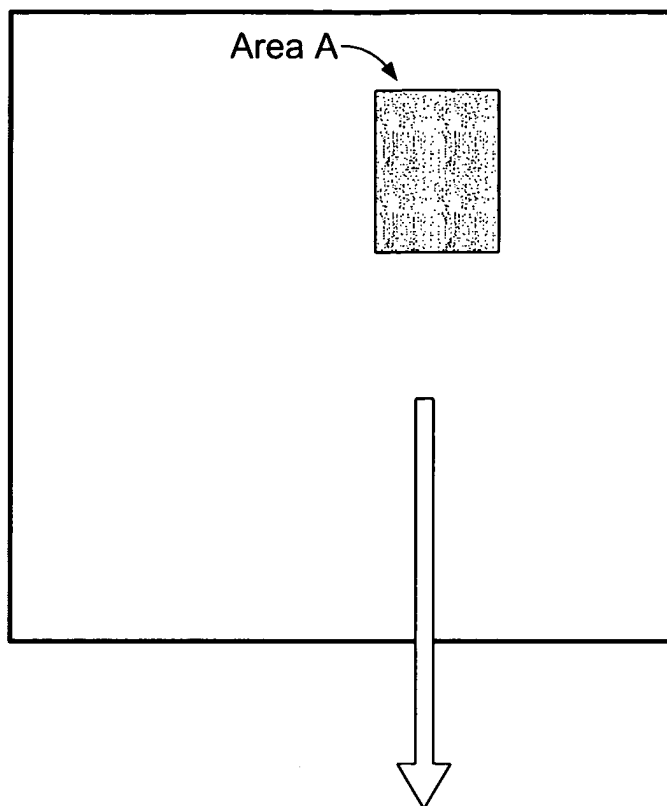


FIG. 8

Filter 1



Filter 1

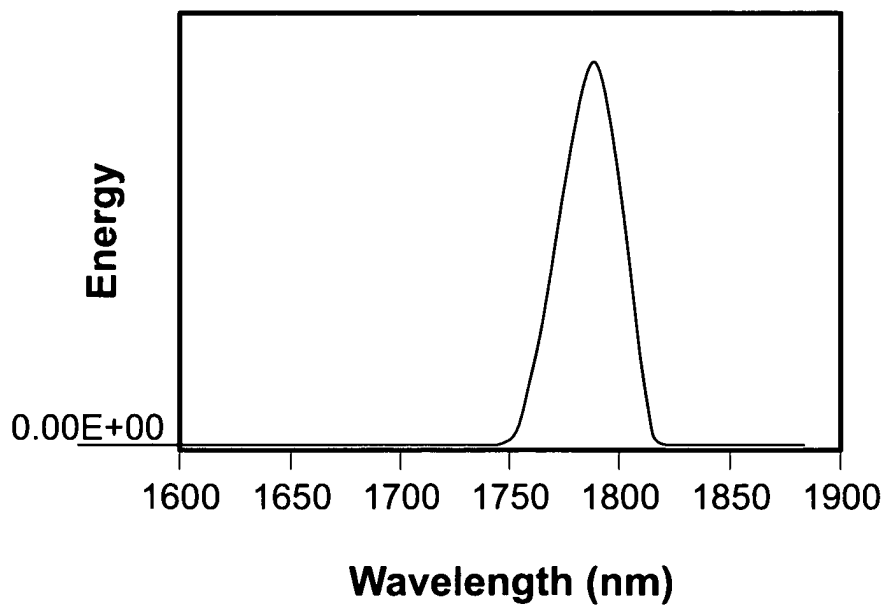
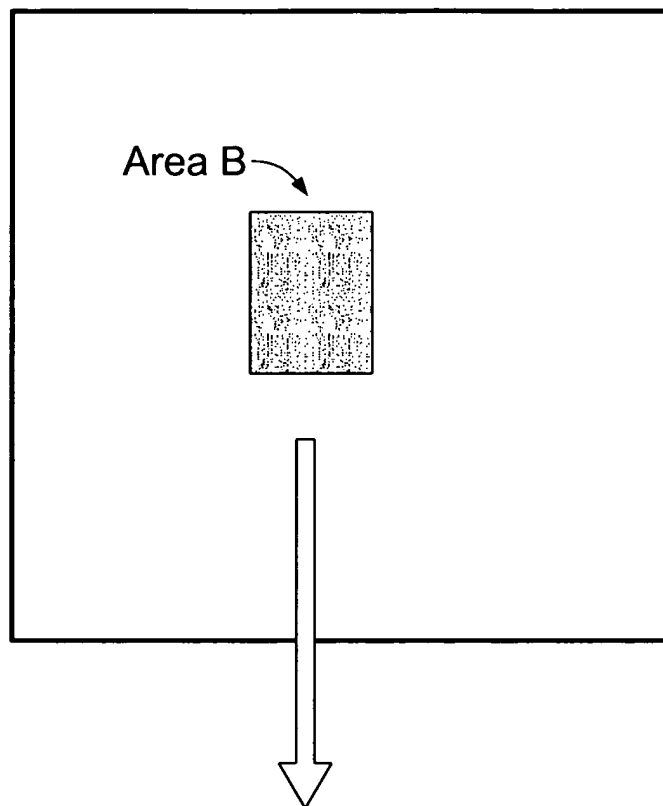


FIG. 9A

Filter 2



Filter 2

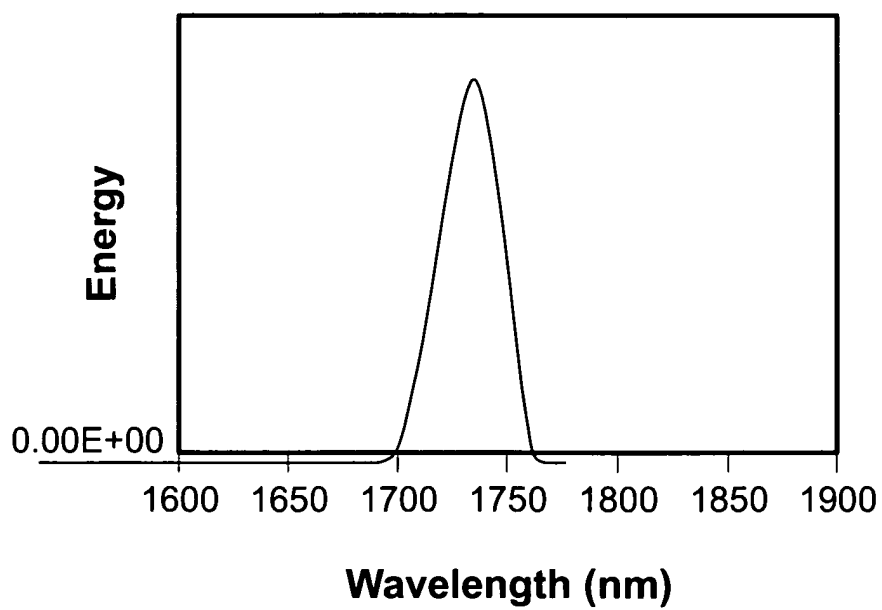
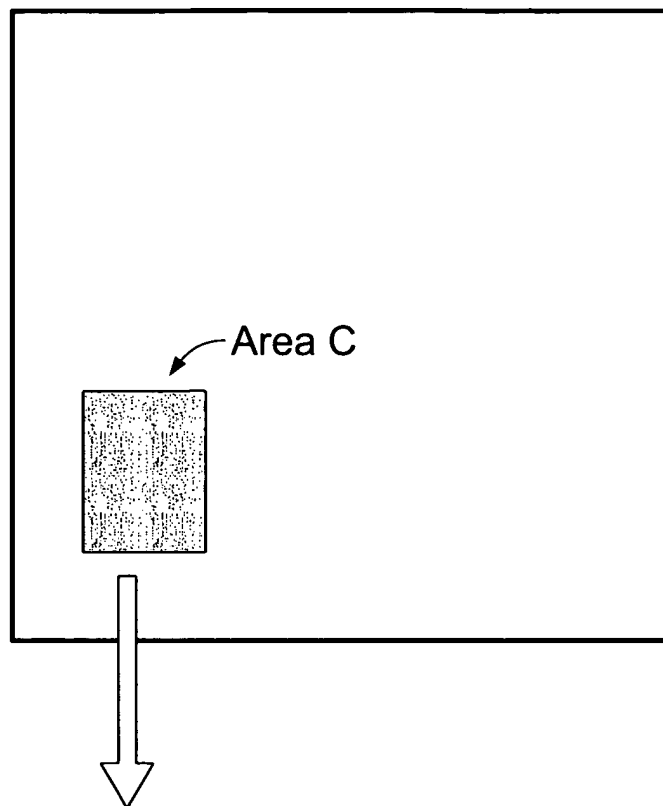


FIG. 9B

Filter 3



Filter 3

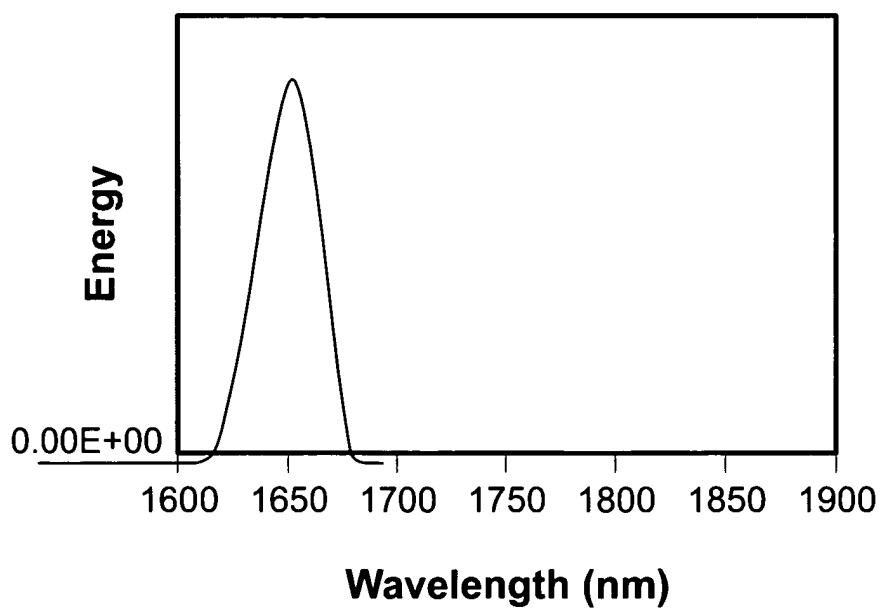
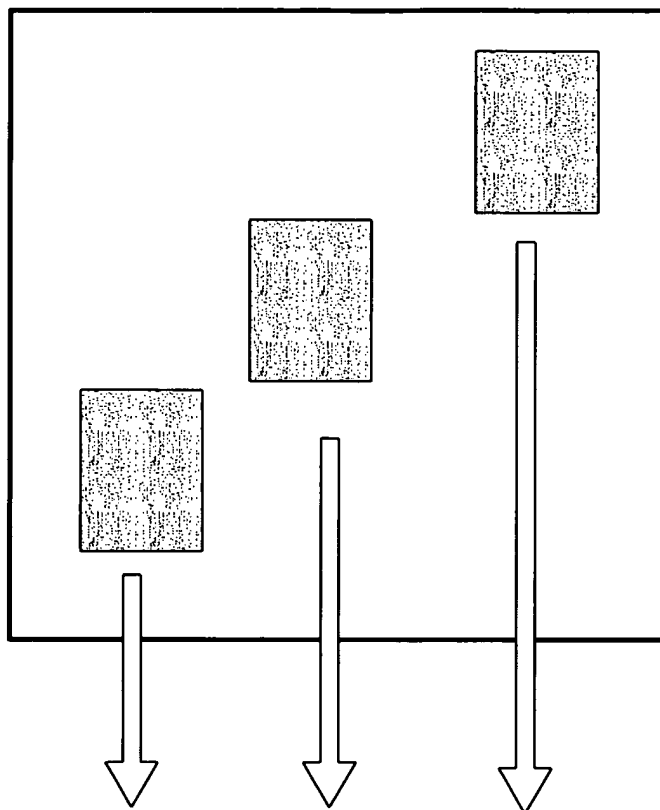


FIG. 9C

Filter 1,2,3



Filter 1,2,3

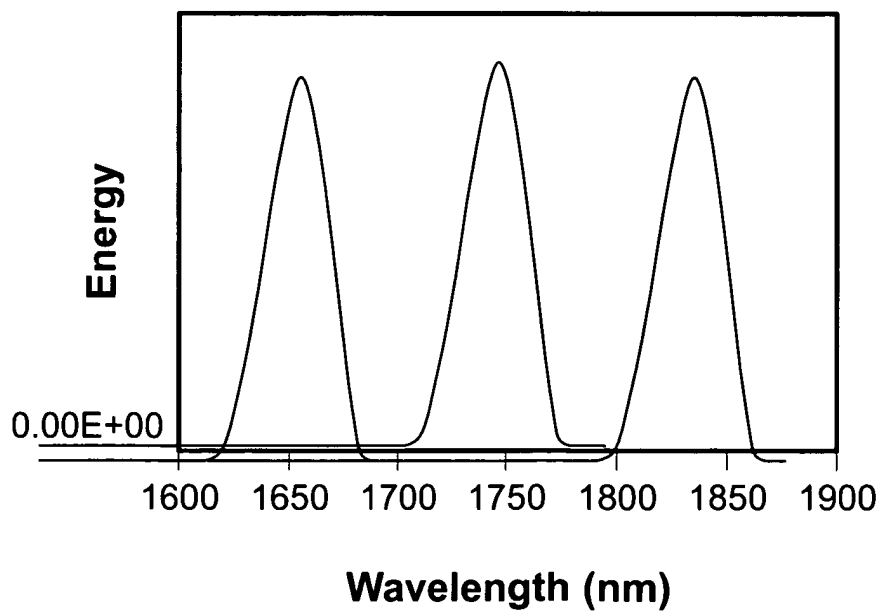


FIG. 9D

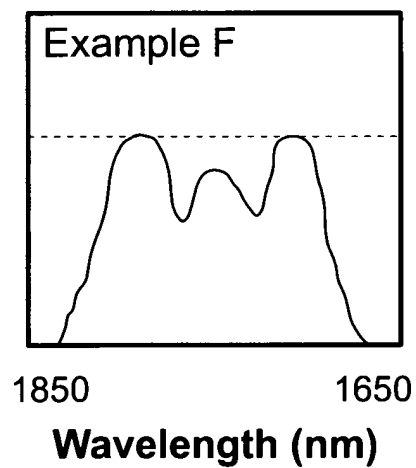
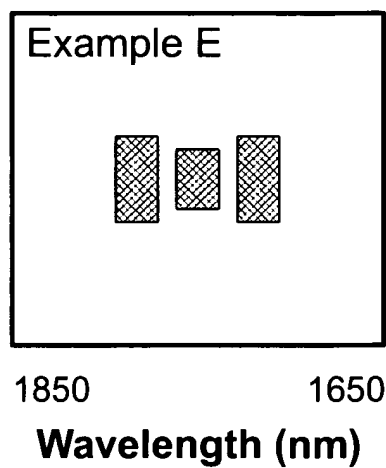
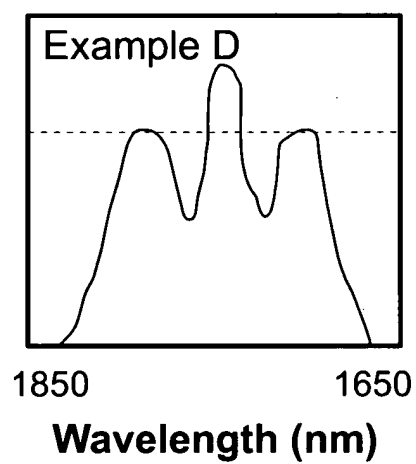
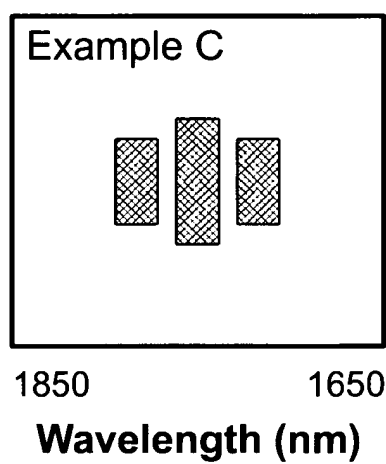
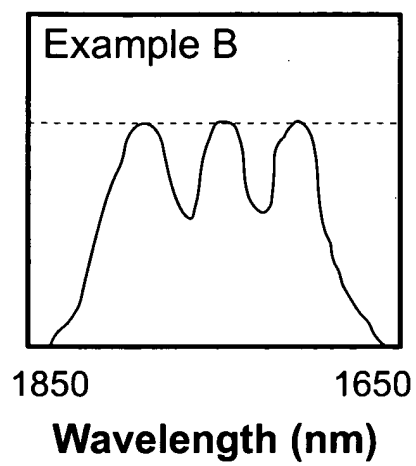
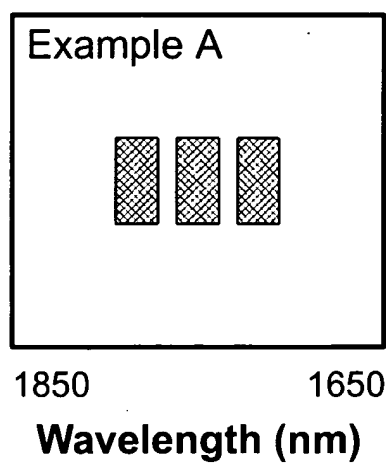


FIG. 10

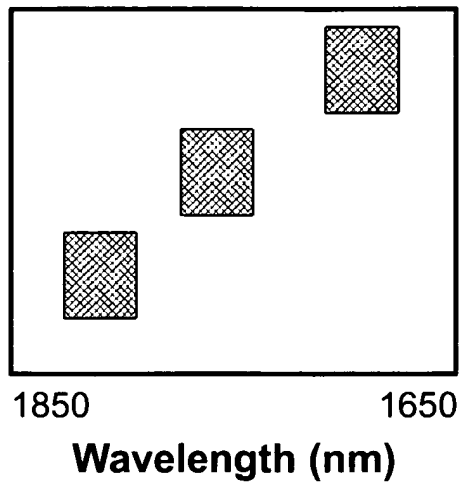


FIG. 11A

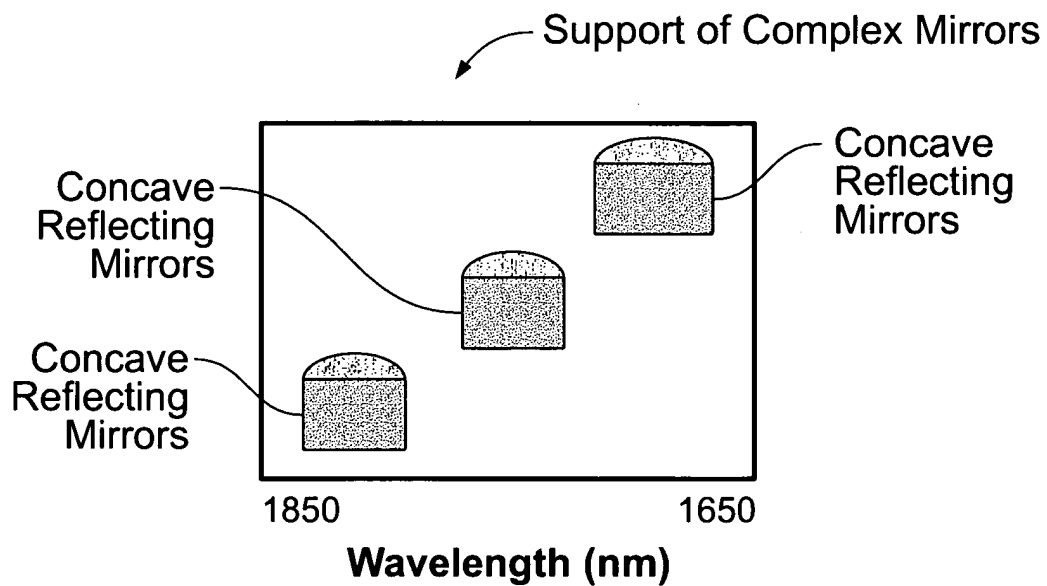


FIG. 11B

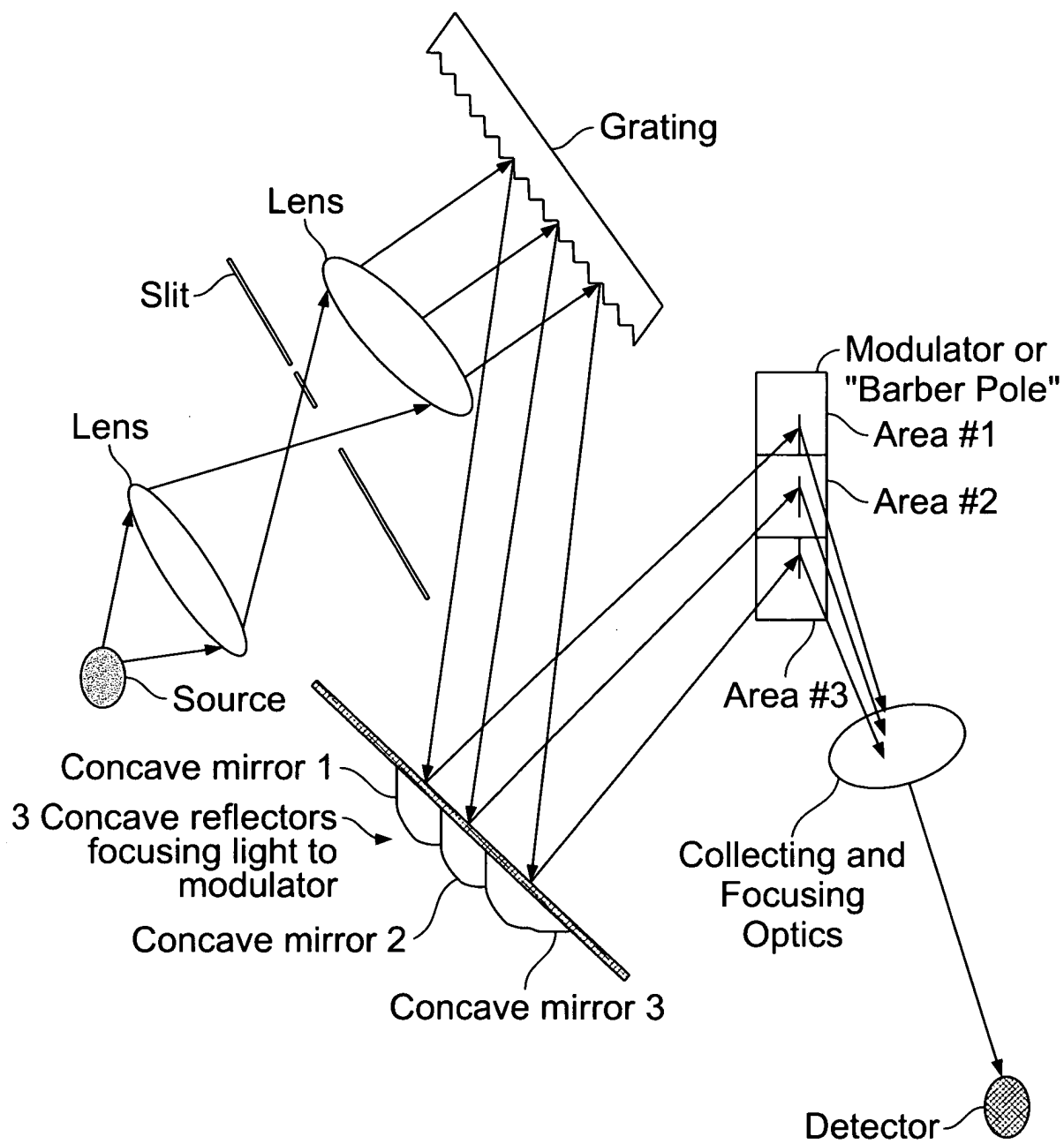


FIG. 12

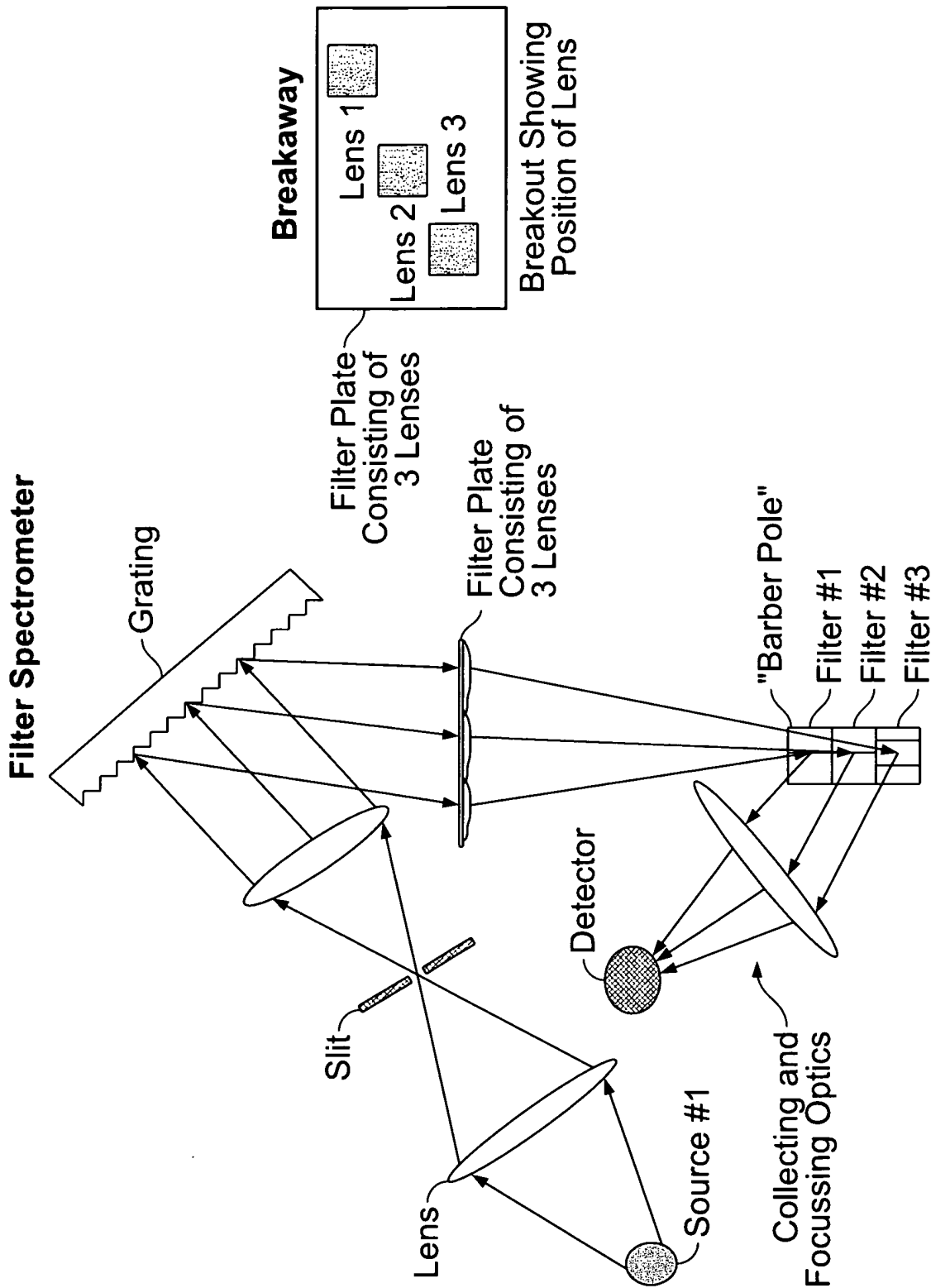


FIG. 13

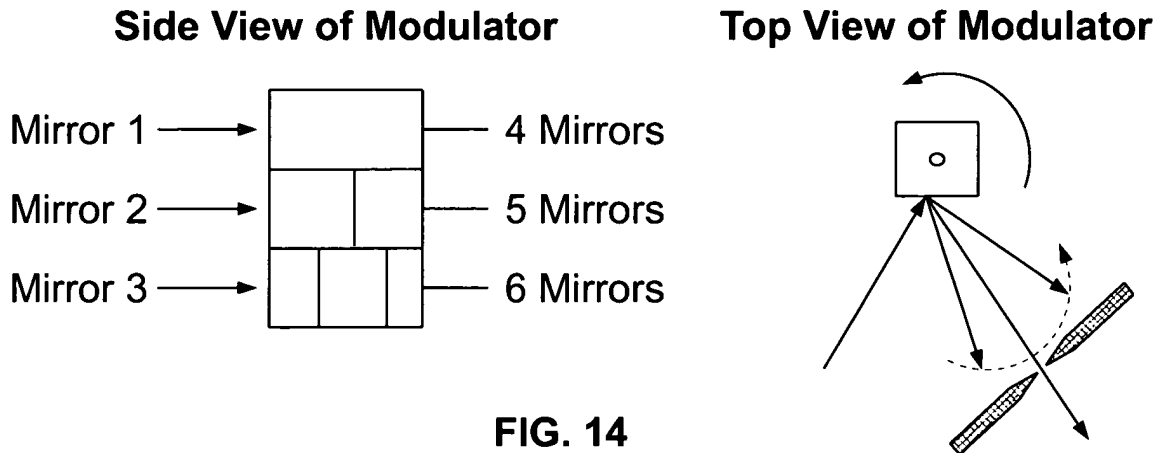


FIG. 14

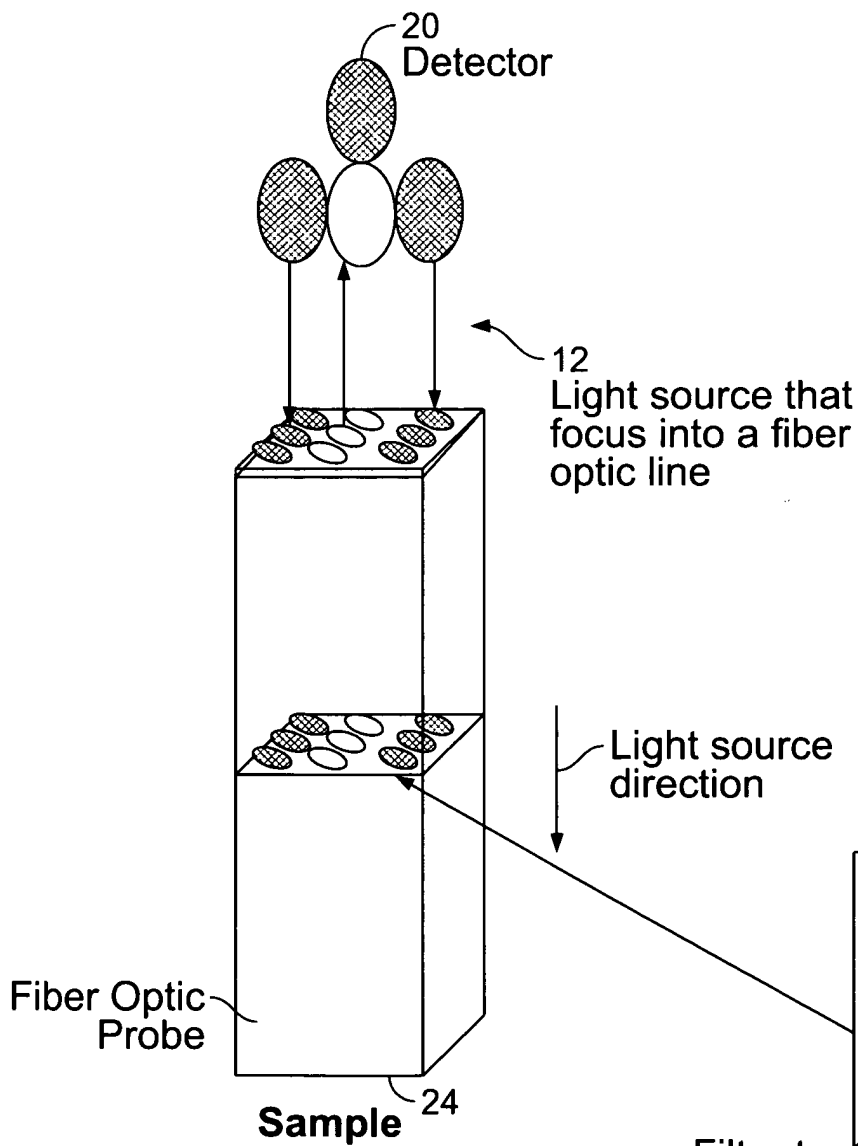


FIG. 15

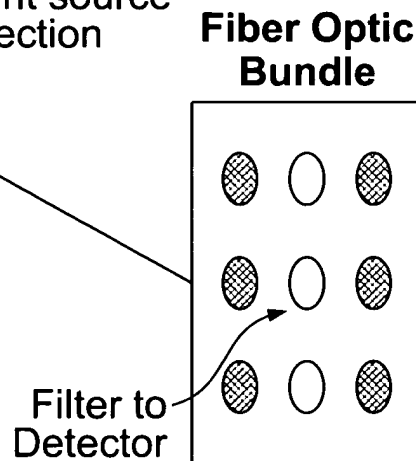


FIG. 16

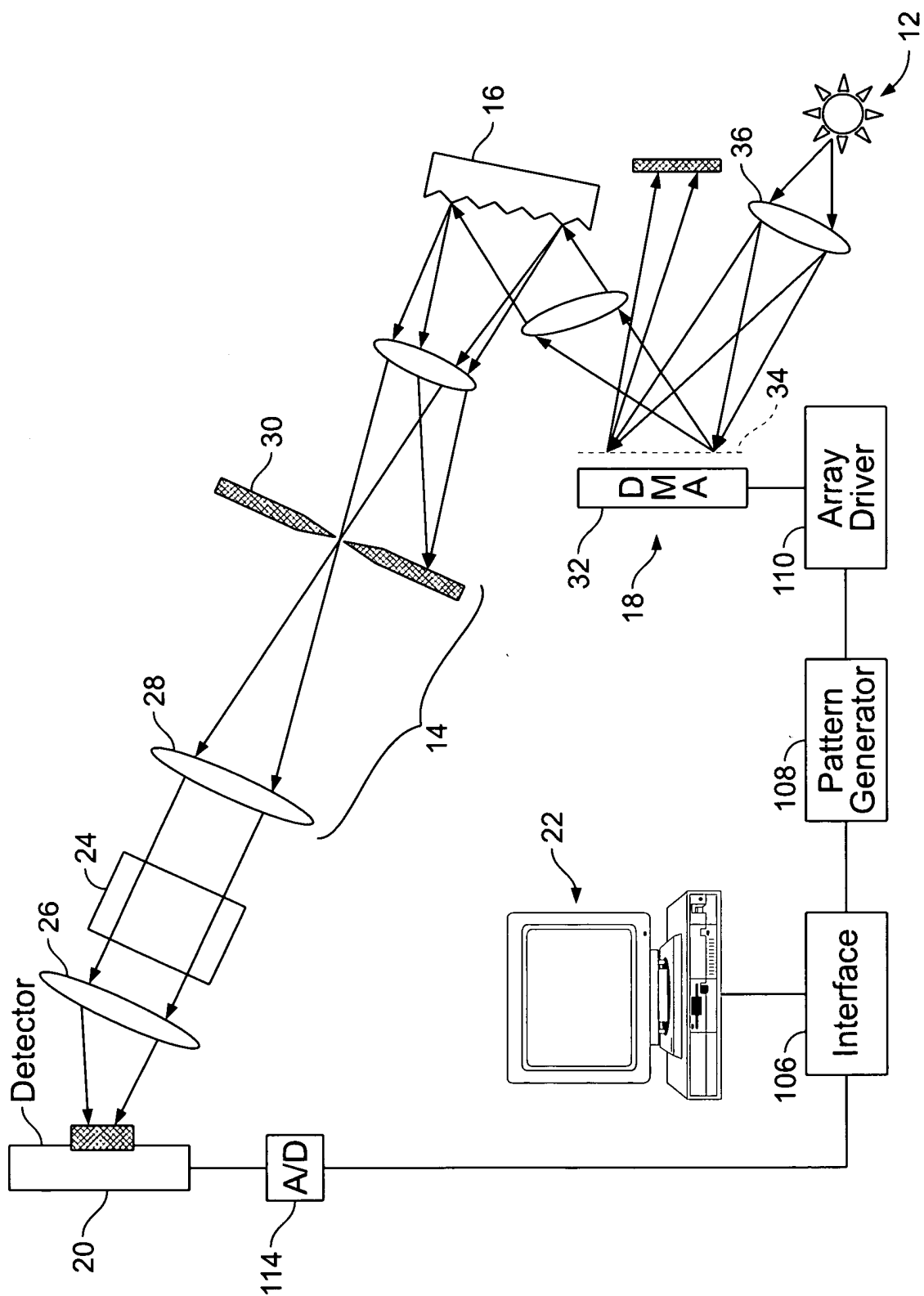


FIG. 17

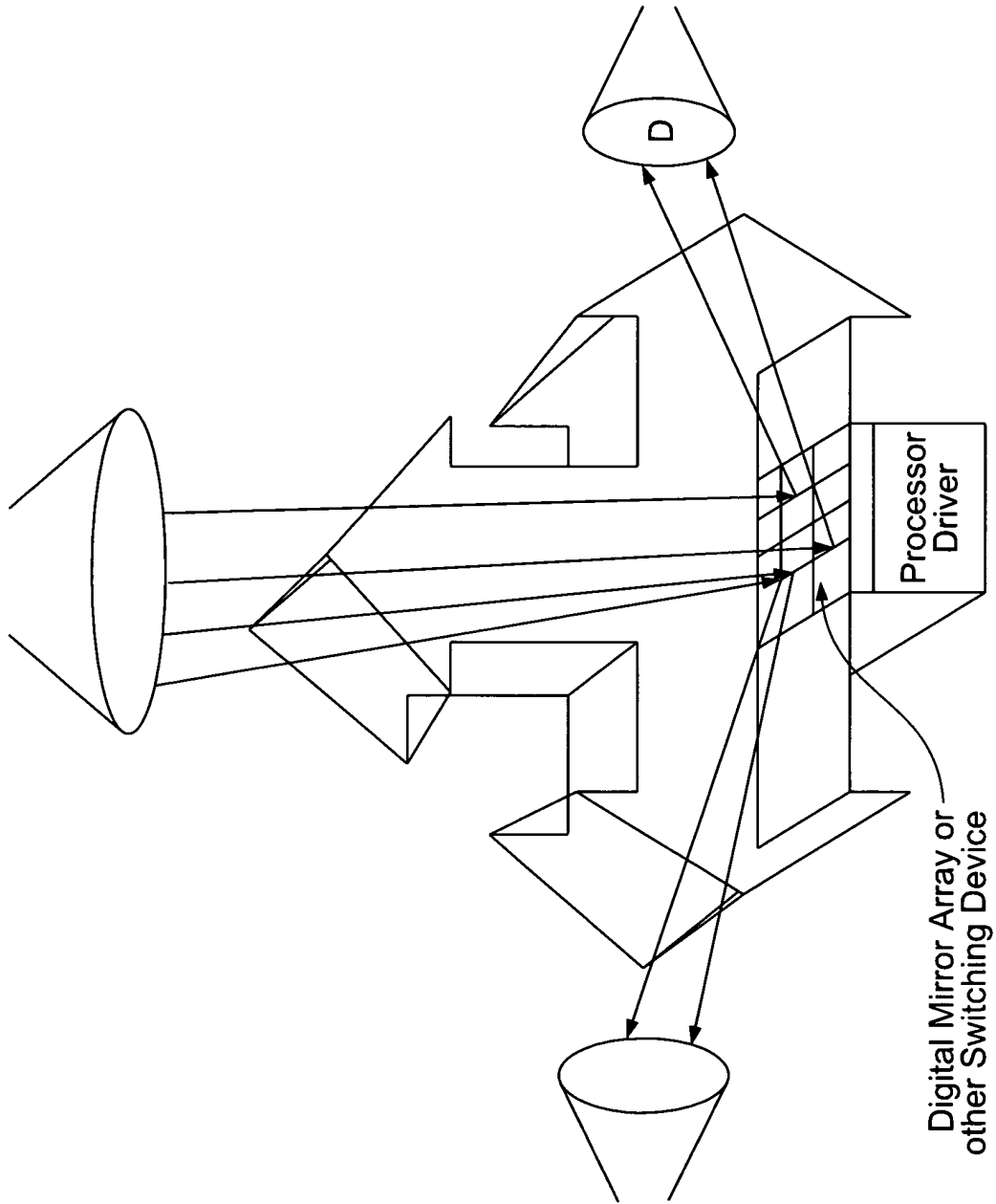
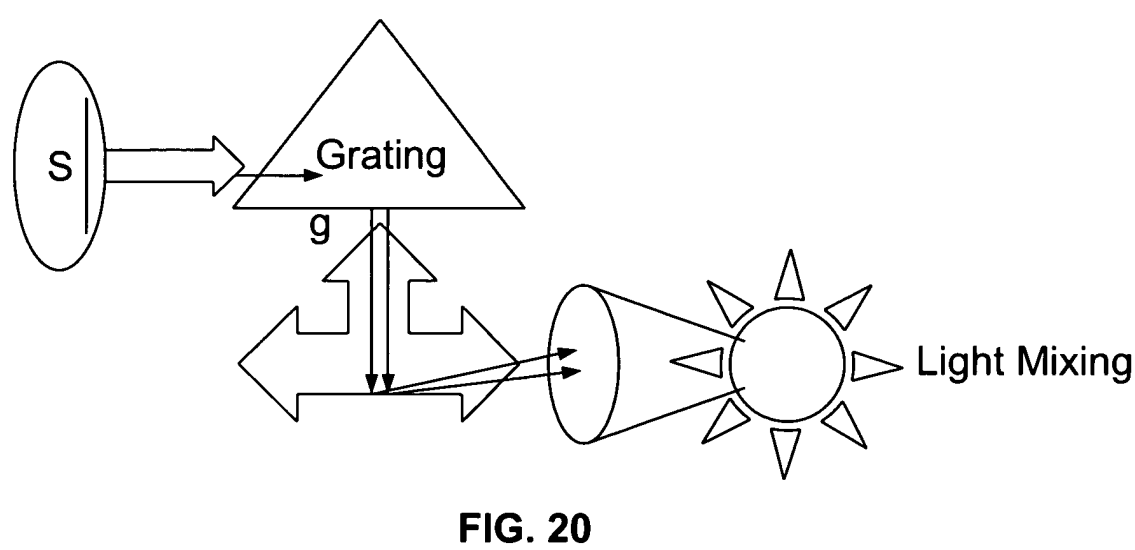
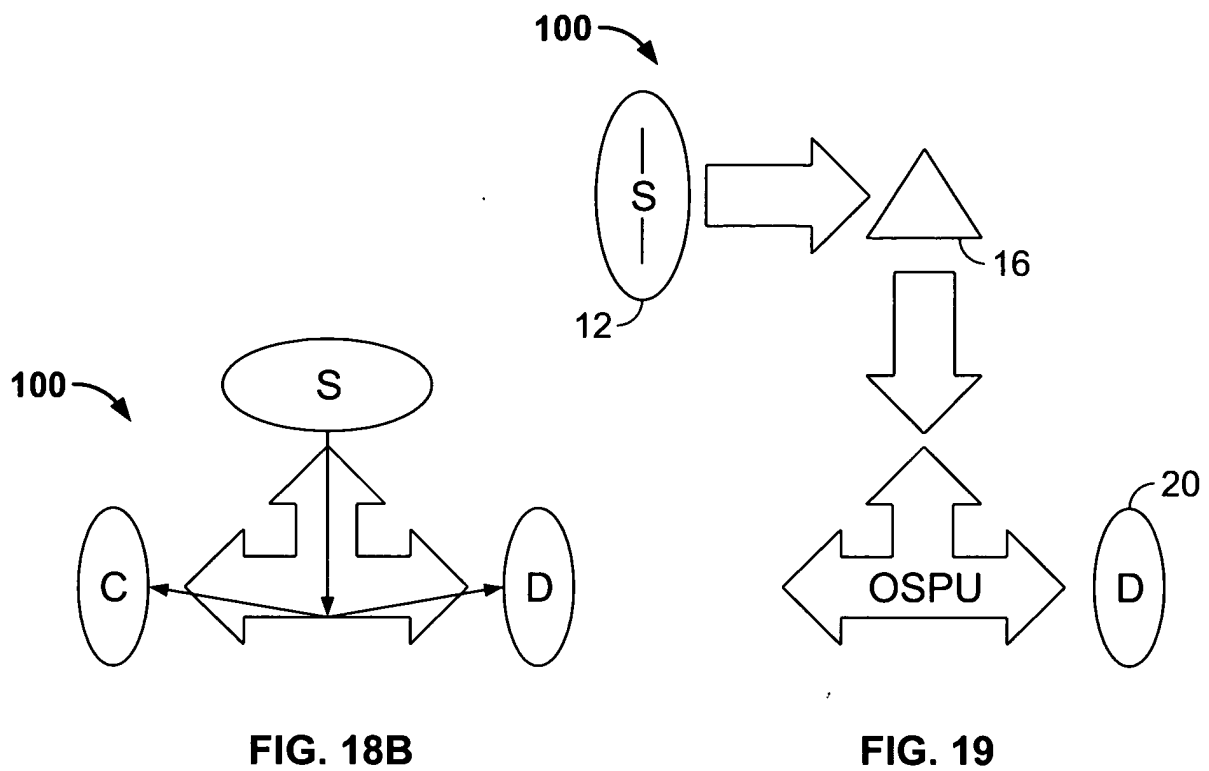


FIG. 18A



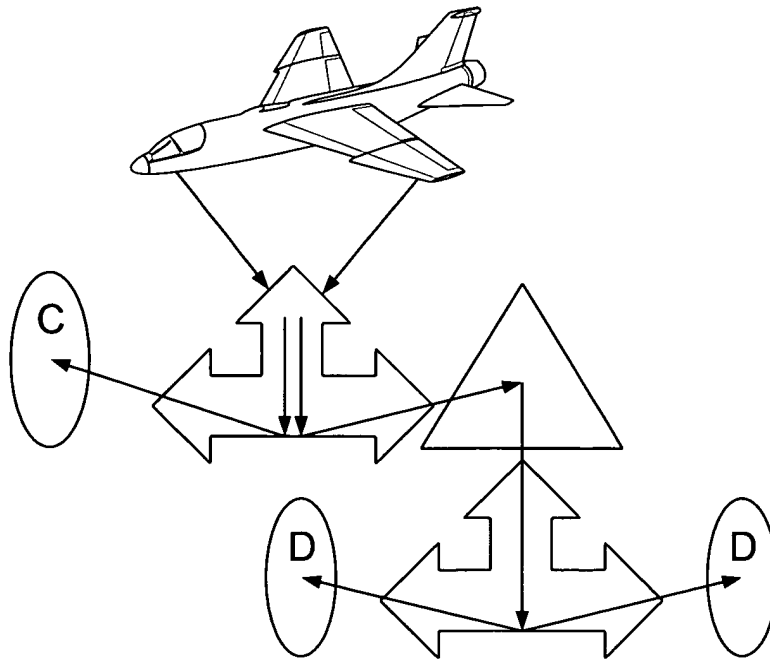


FIG. 21

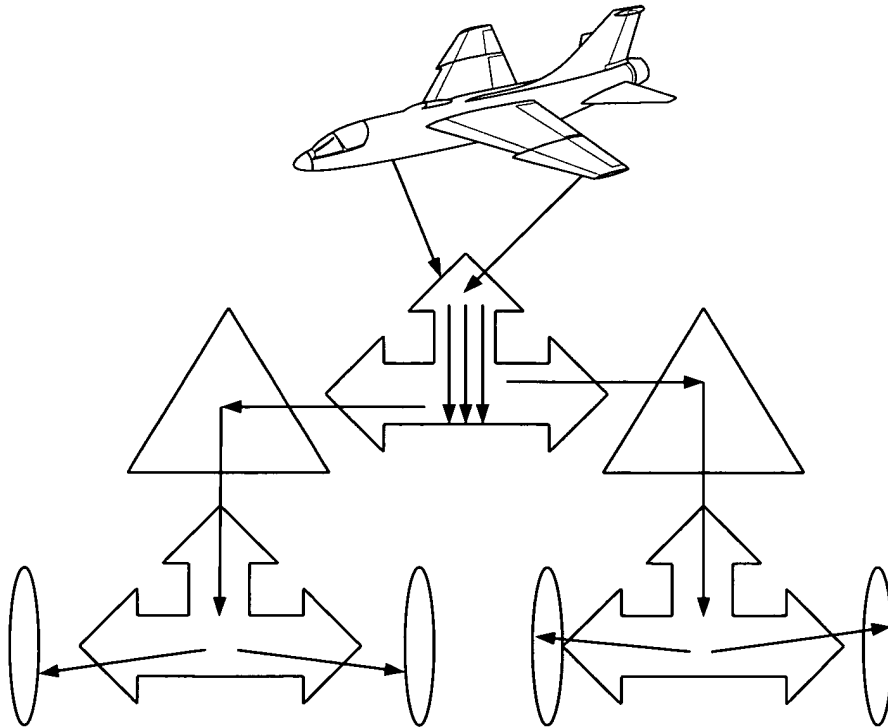


FIG. 22

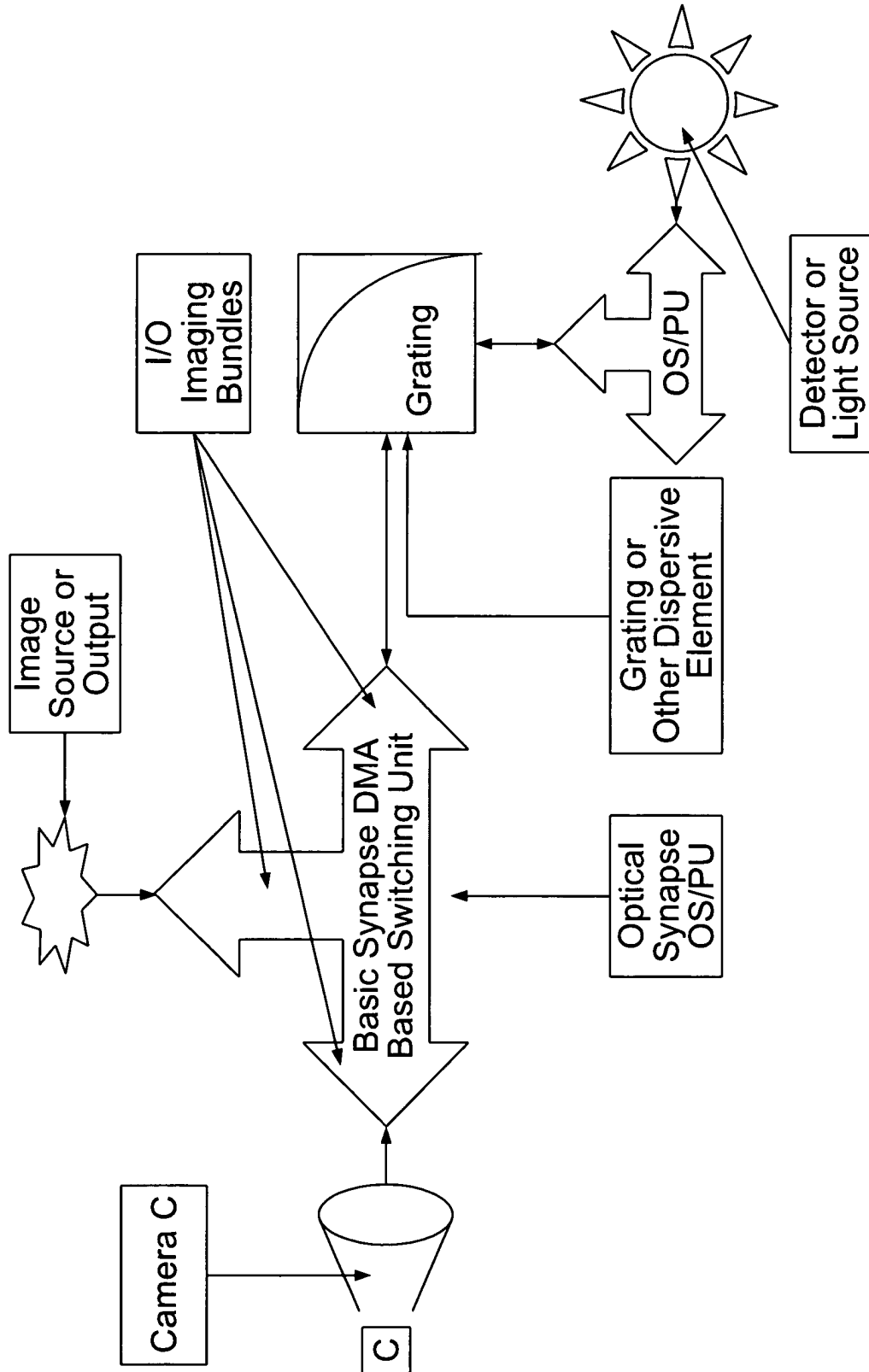


FIG. 23

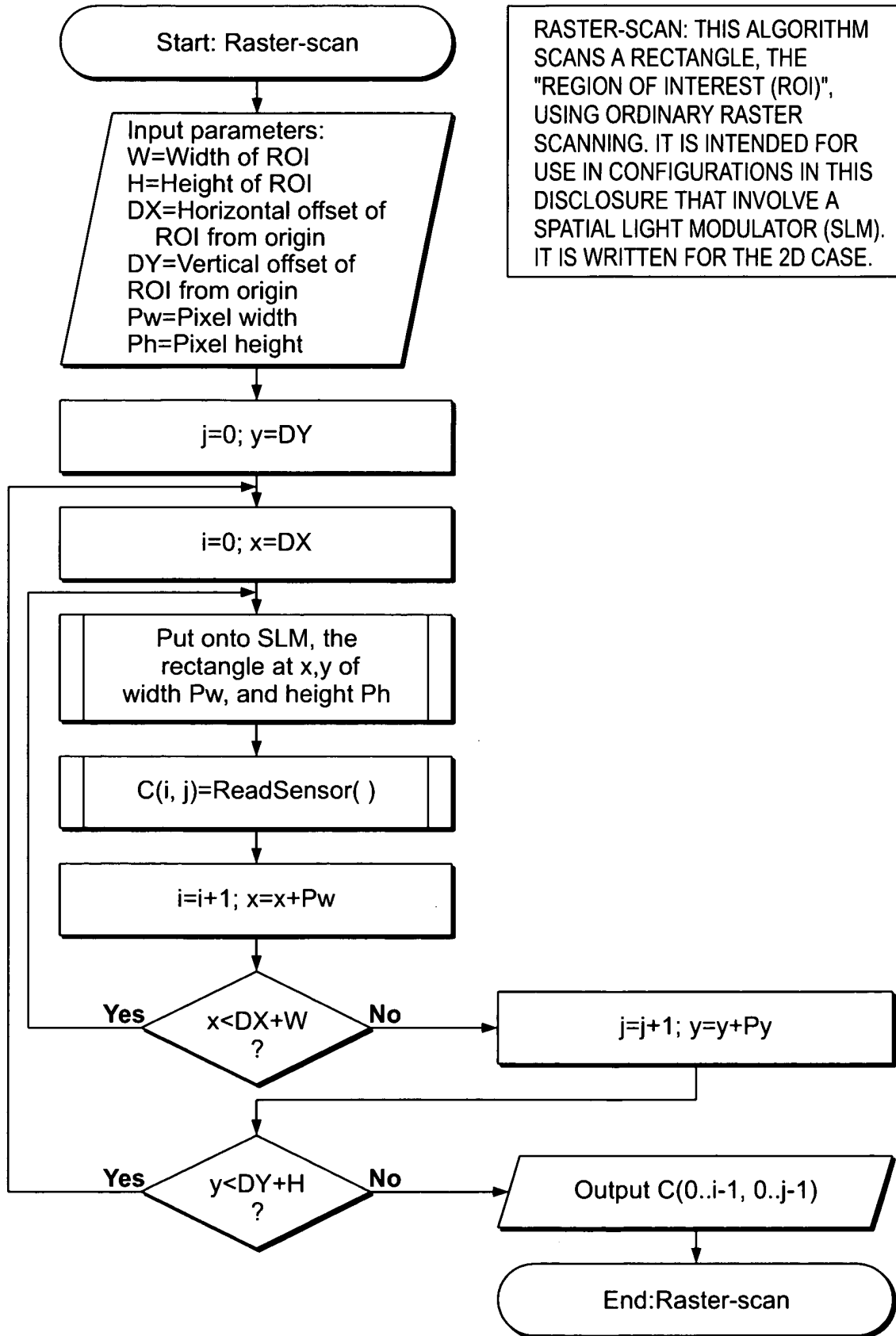


FIG. 24

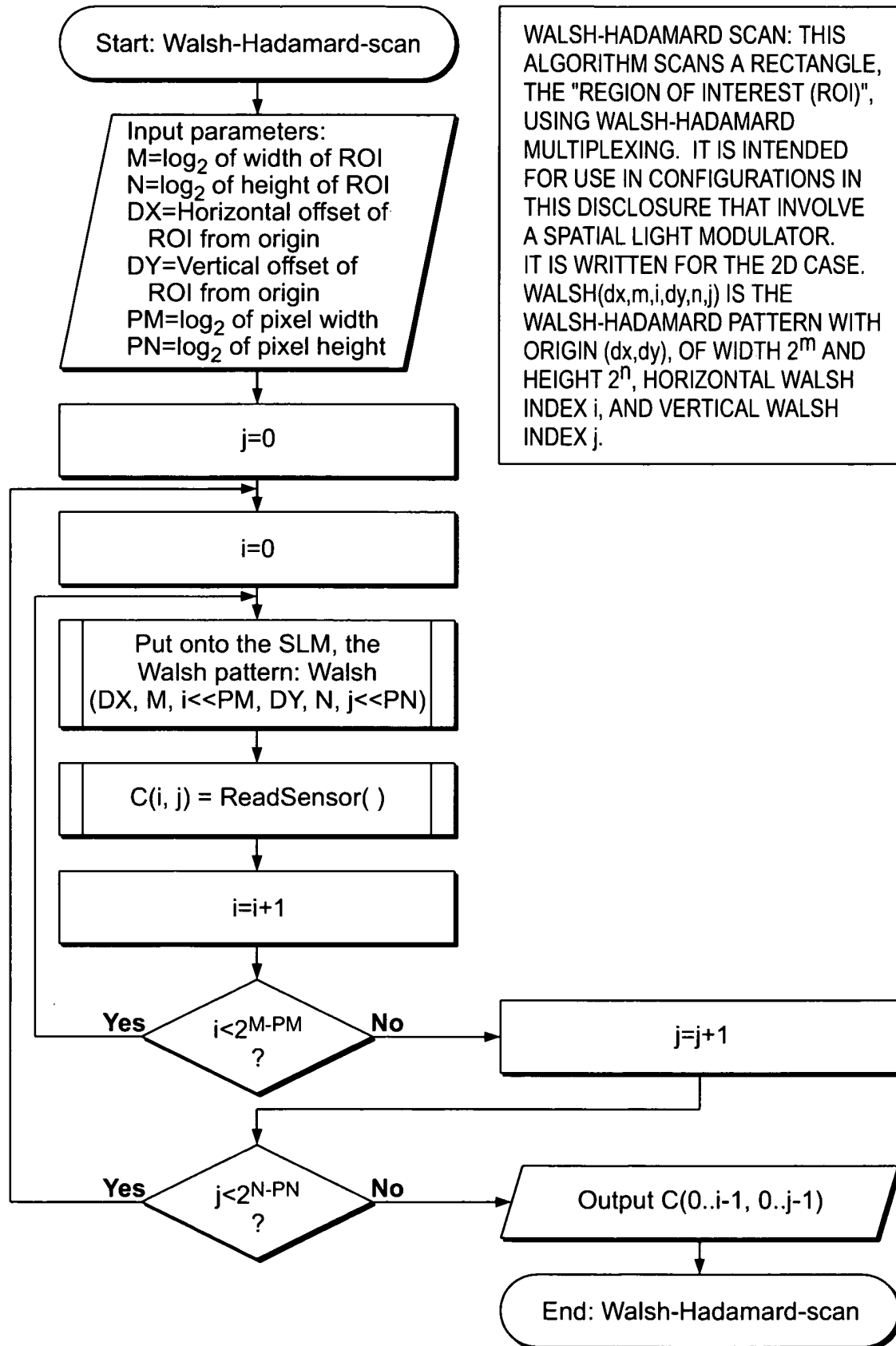


FIG. 25

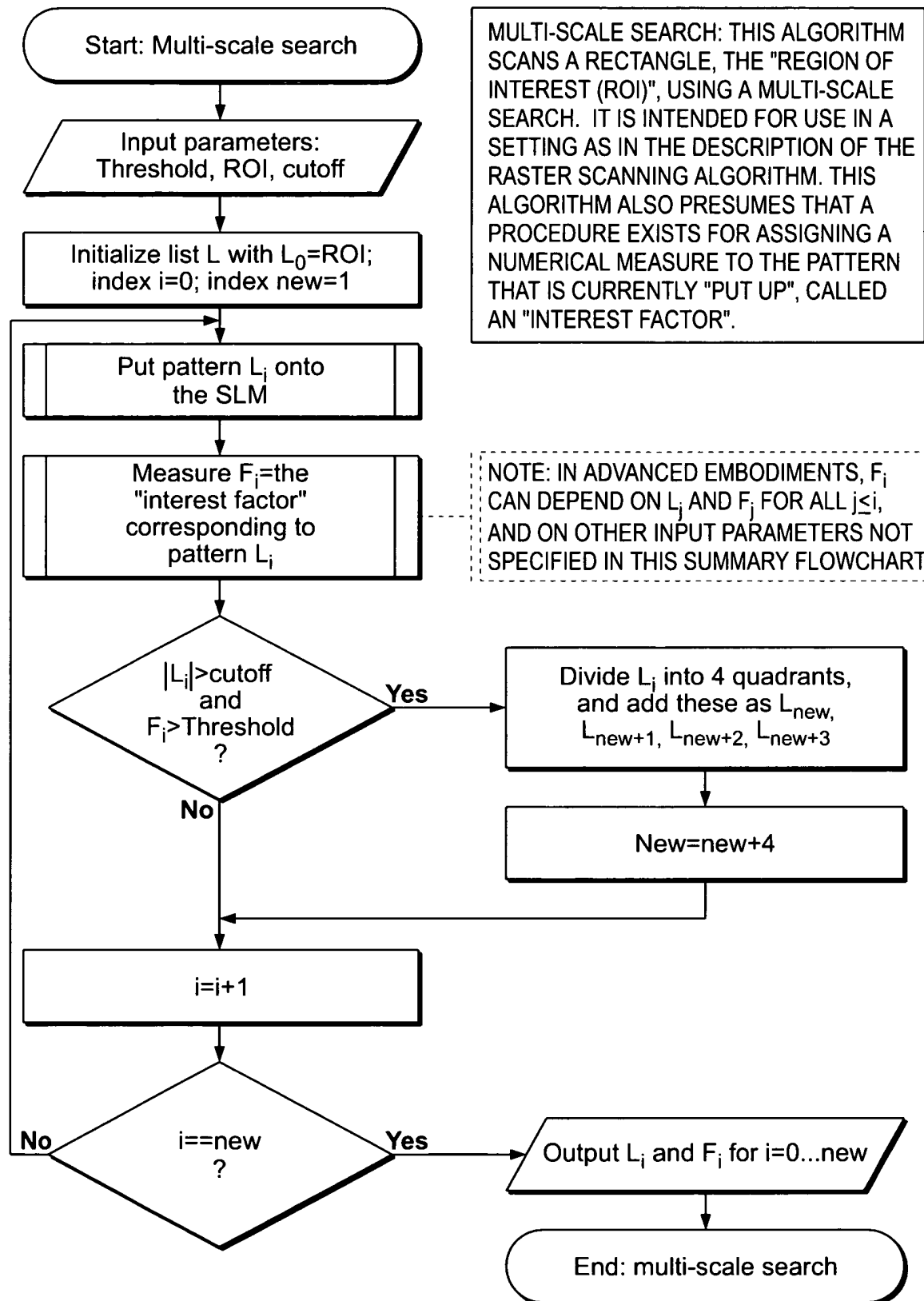


FIG. 26

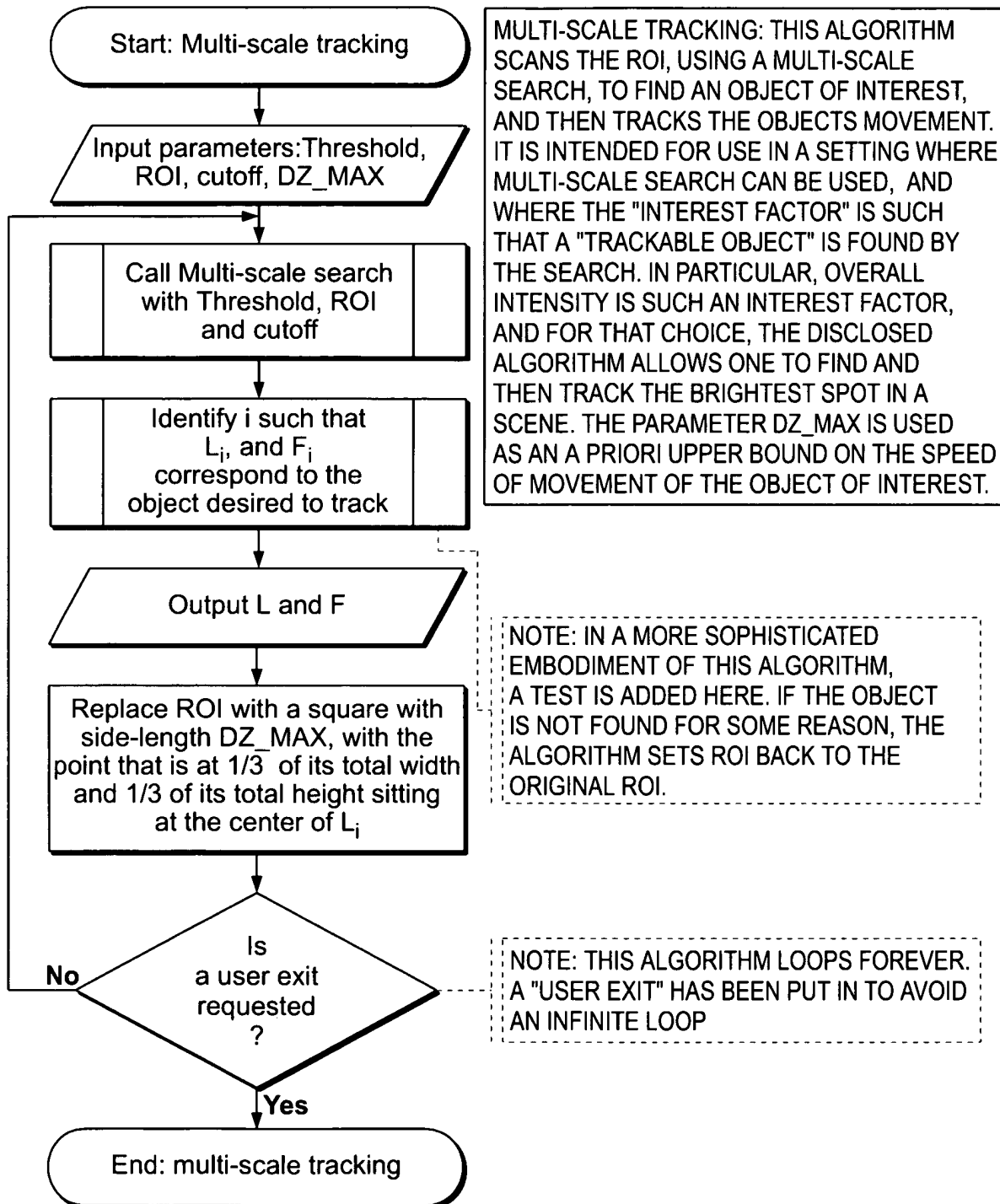


FIG. 26A

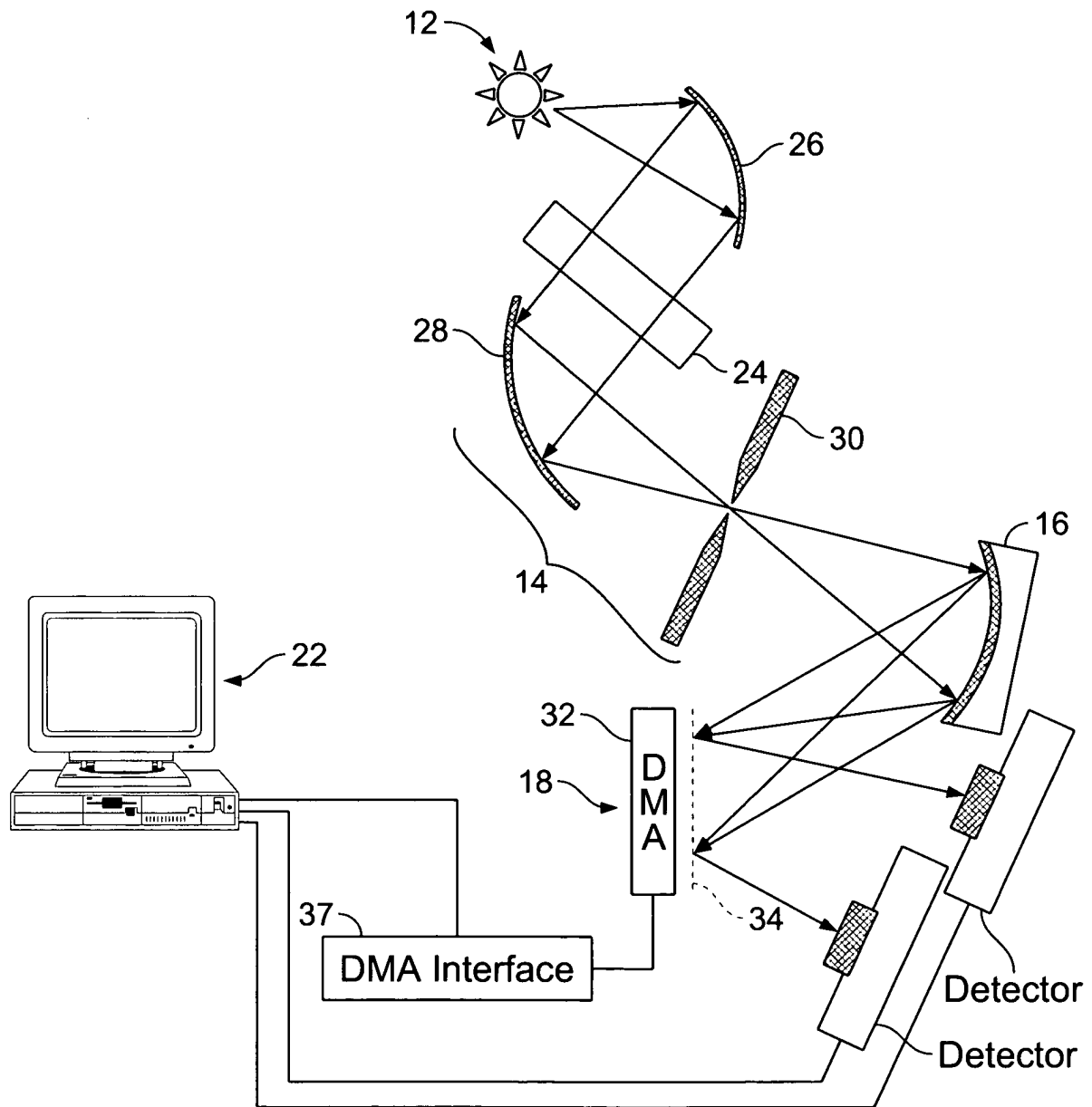


FIG. 27

Walsh Packet Library of Patterns of 0,1,-1
All 24 Patterns for 8 Points

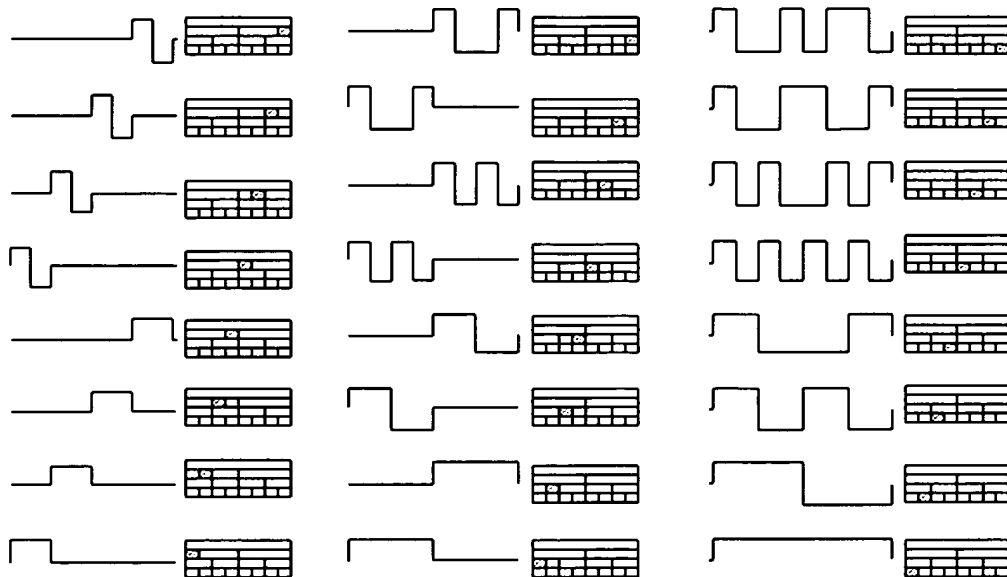


FIG. 28

Modular Fiber Optic Sensor System

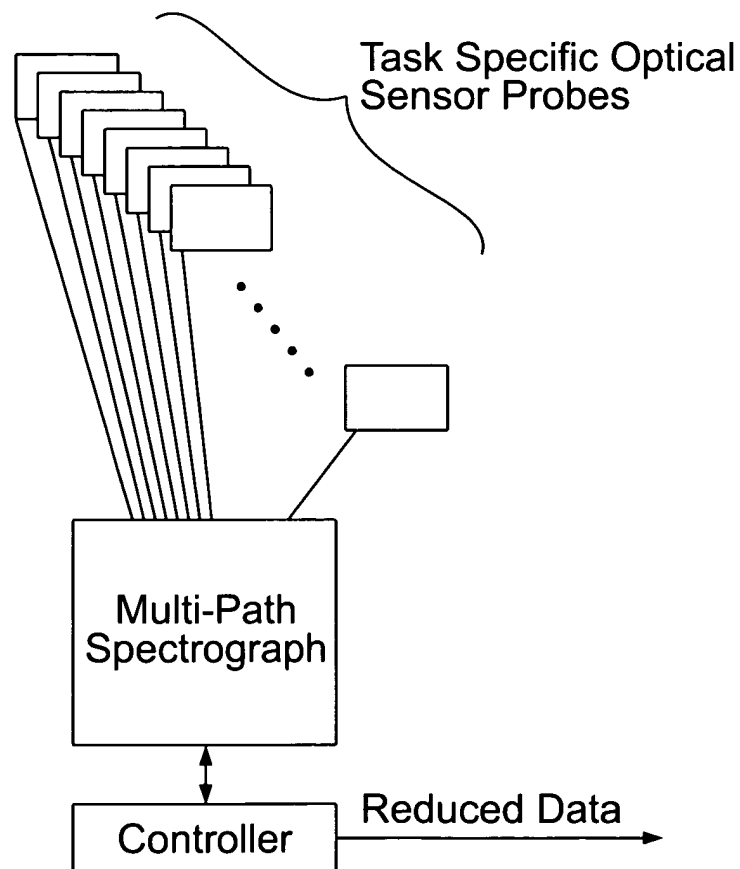


FIG. 29

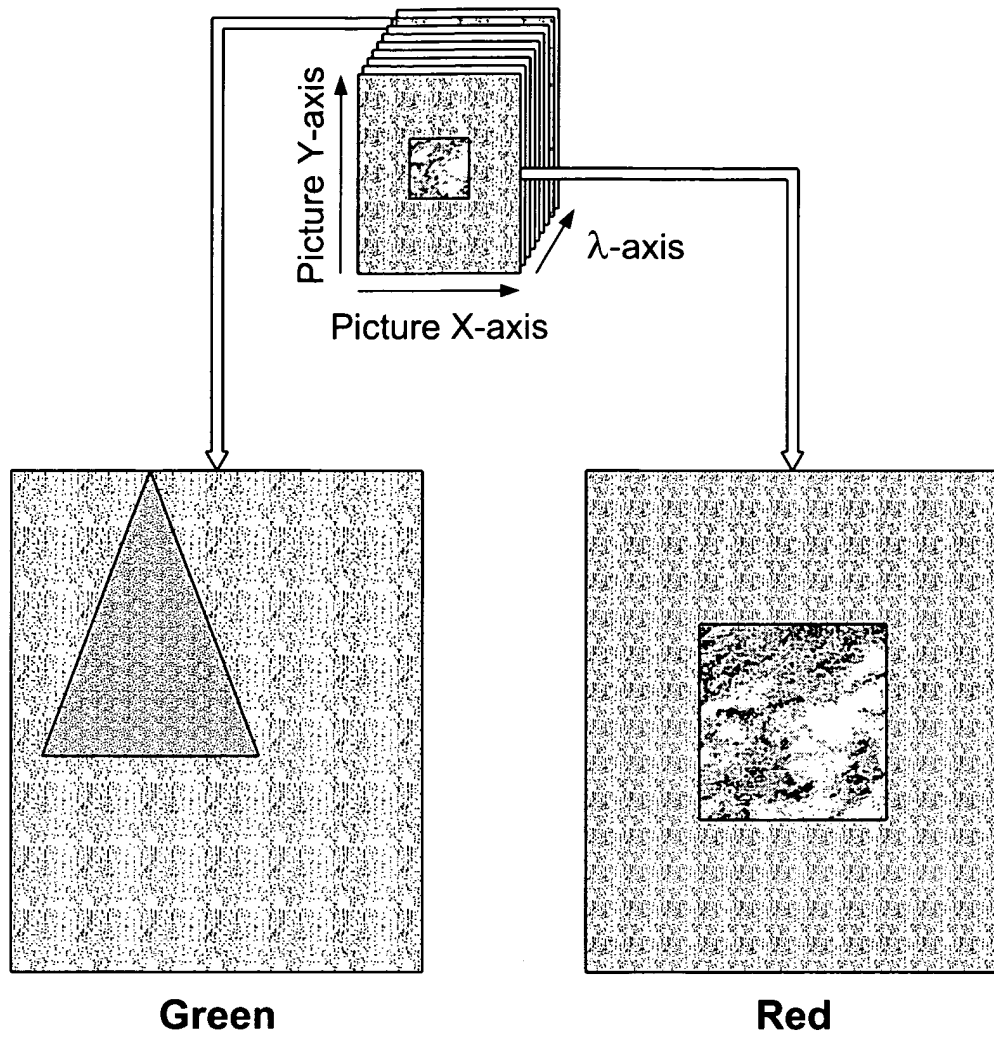


FIG. 30

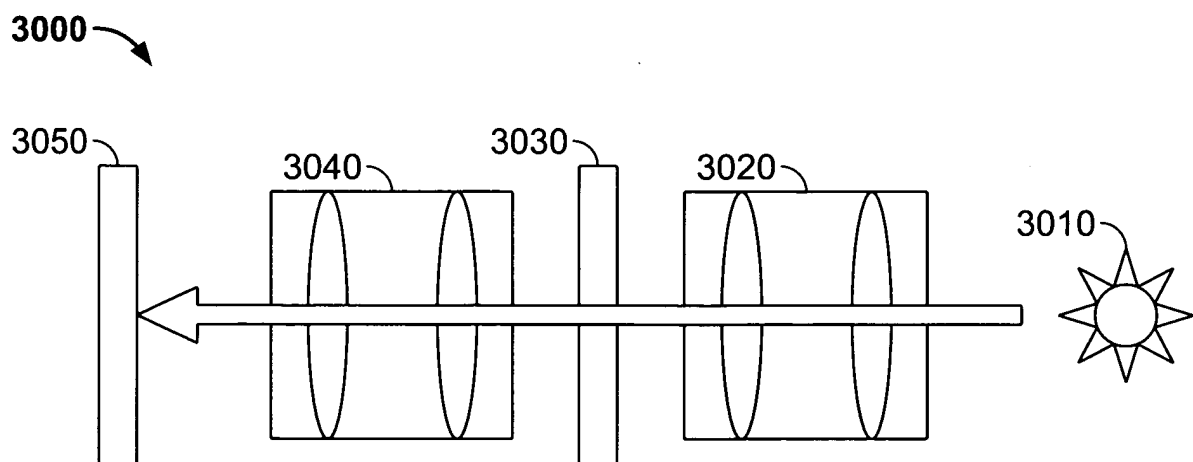


FIG. 31

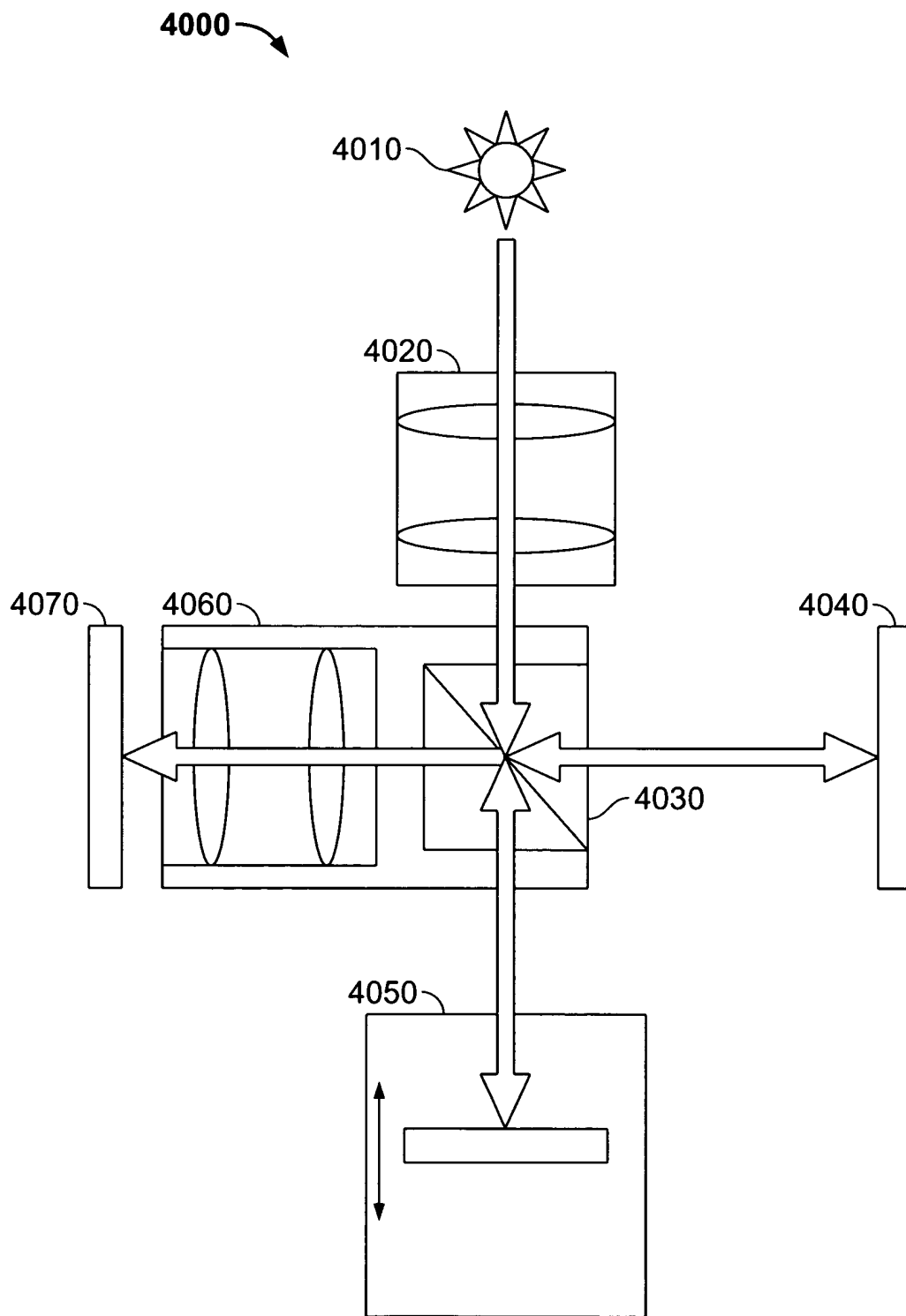


FIG. 32

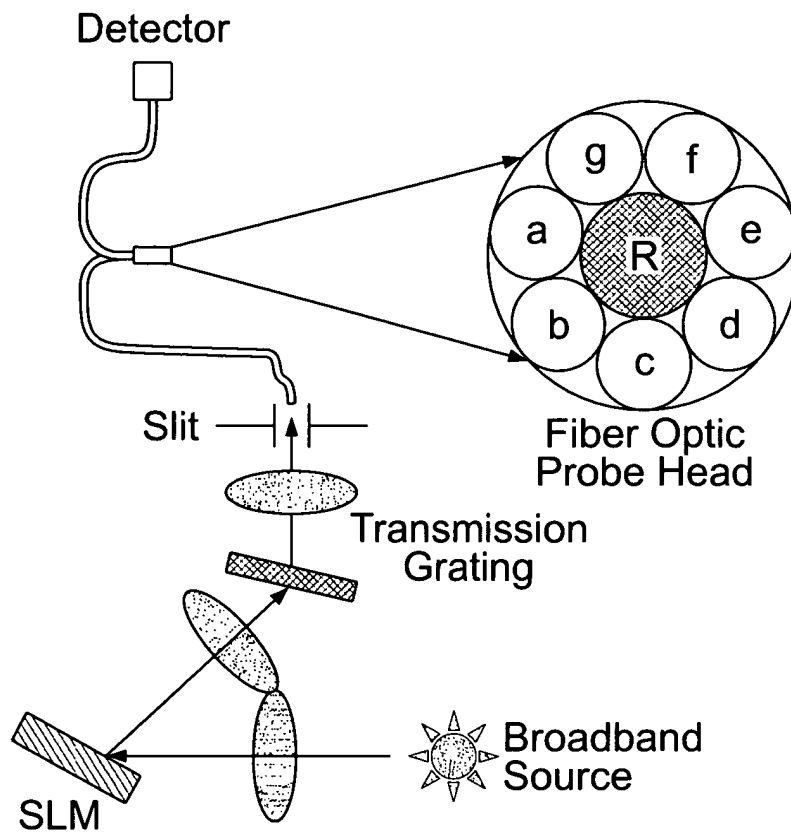


FIG. 33A

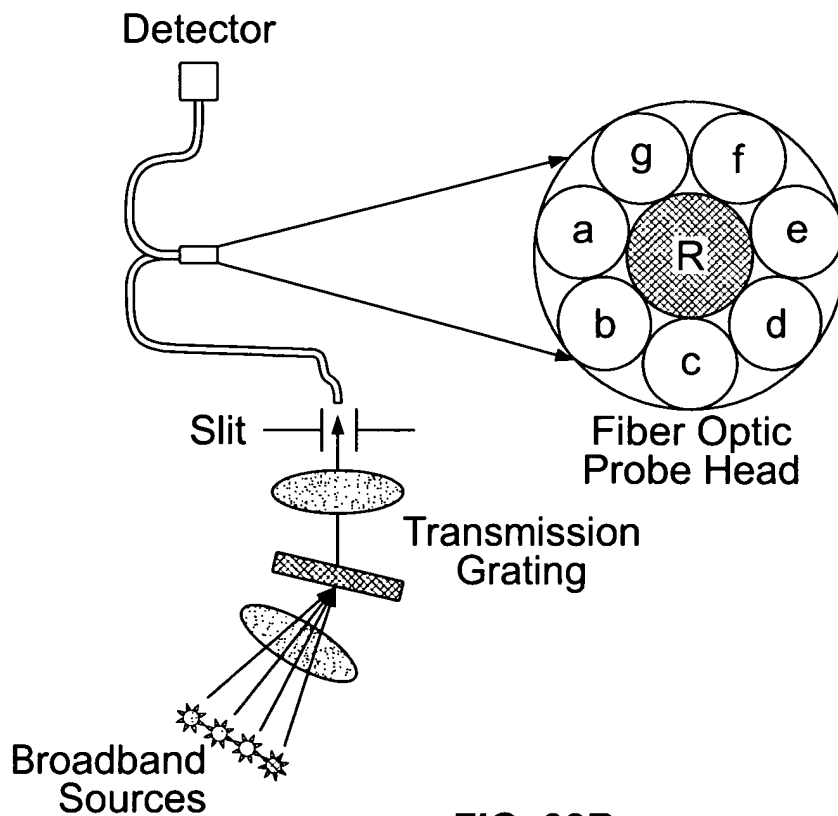


FIG. 33B

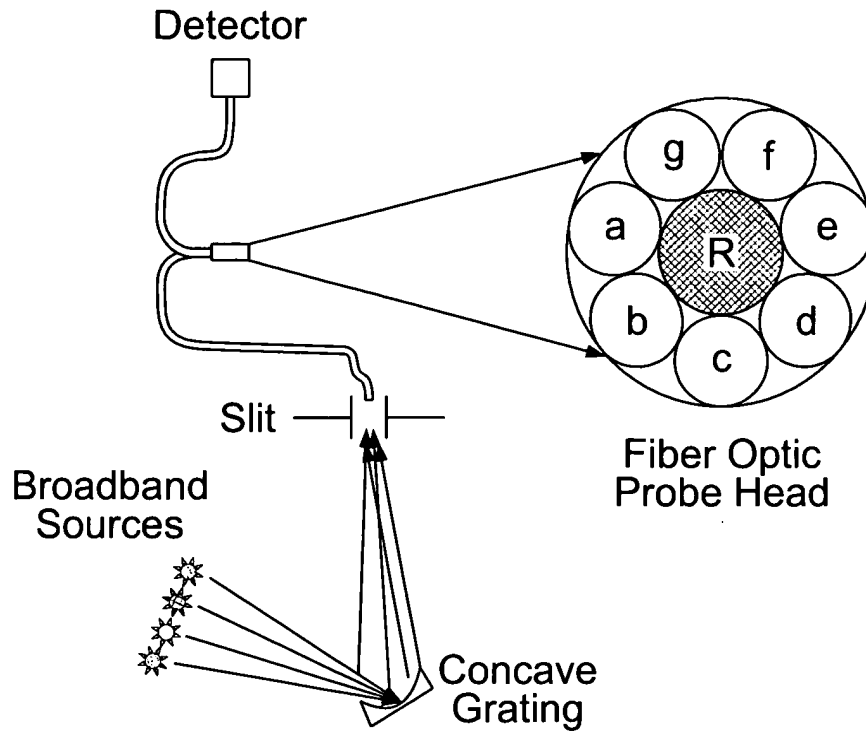


FIG. 33C

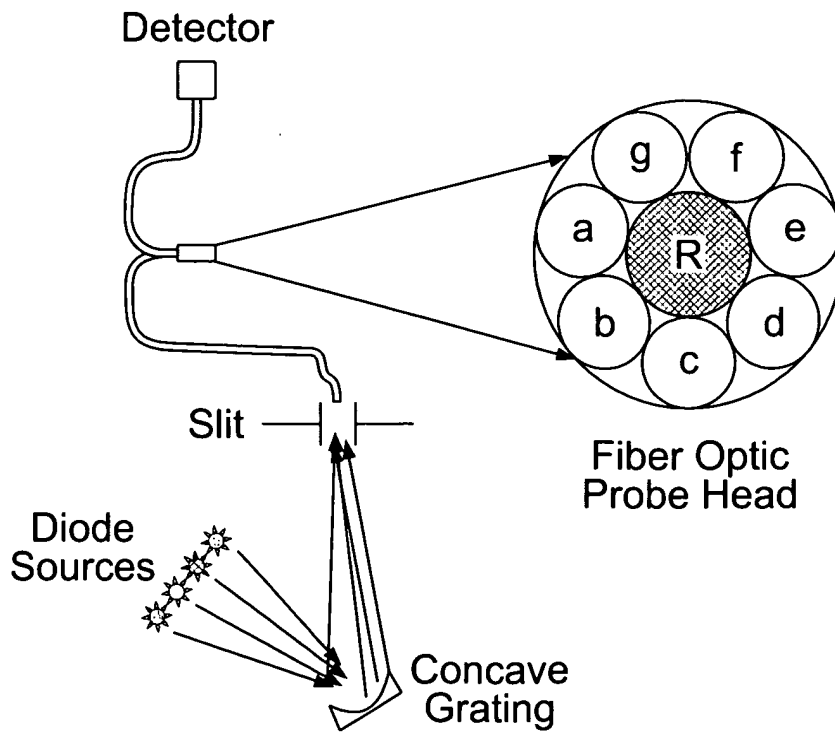


FIG. 33D

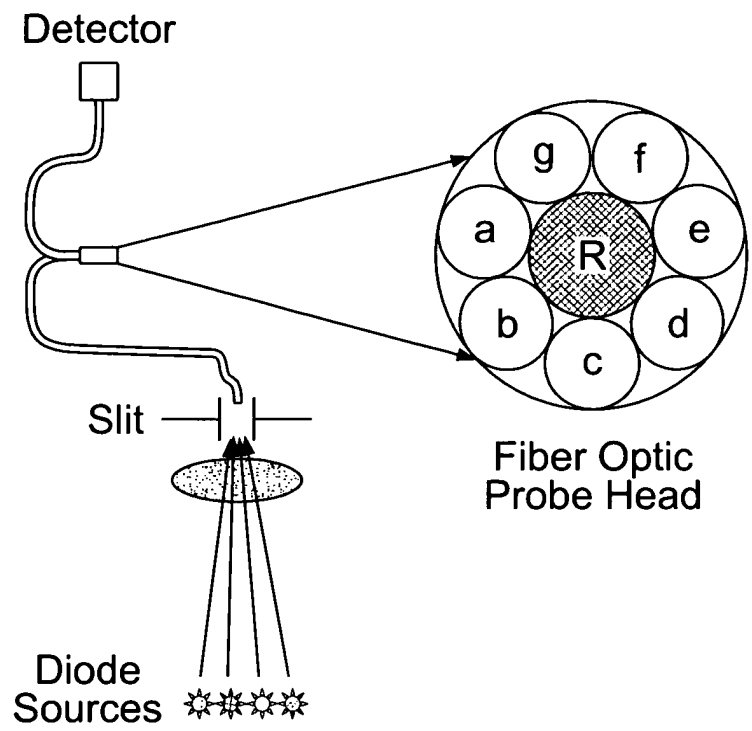


FIG. 33E

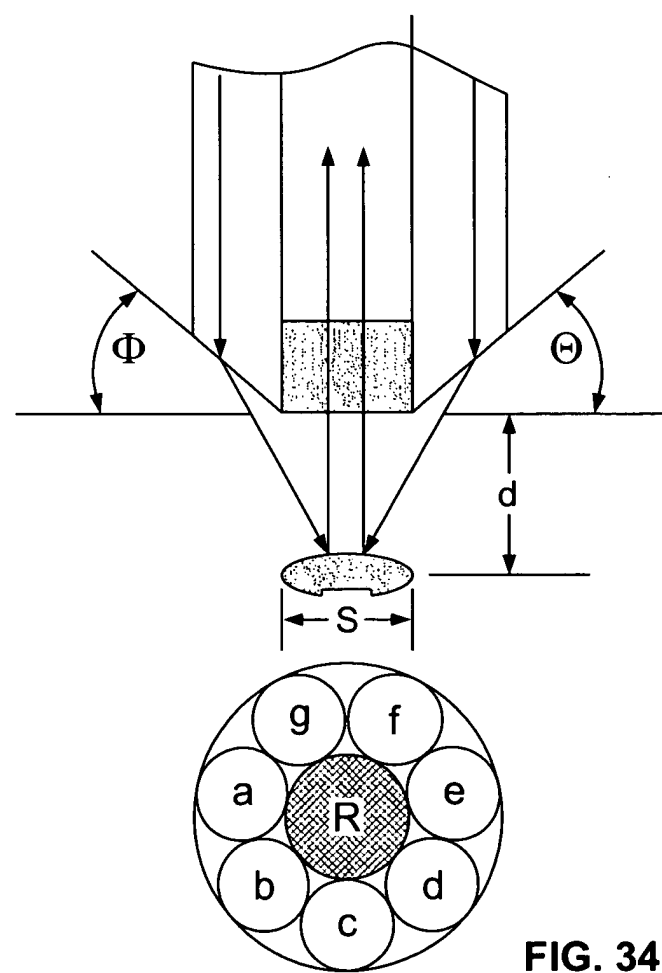


FIG. 34

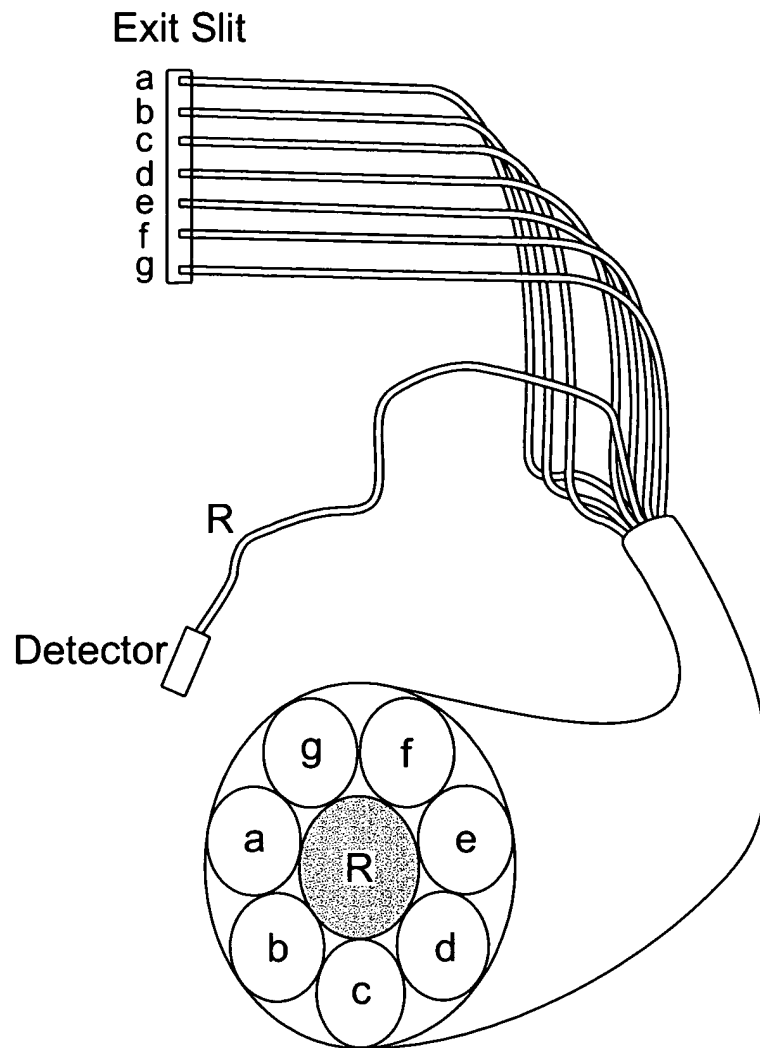


FIG. 35

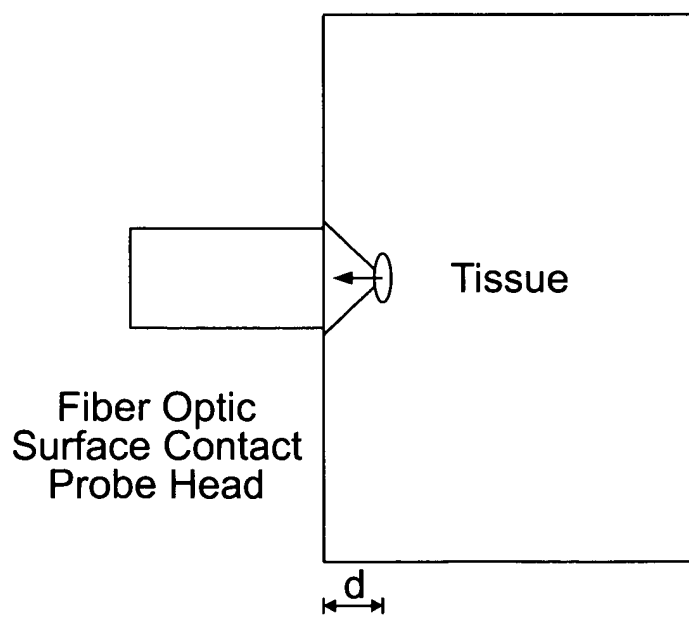
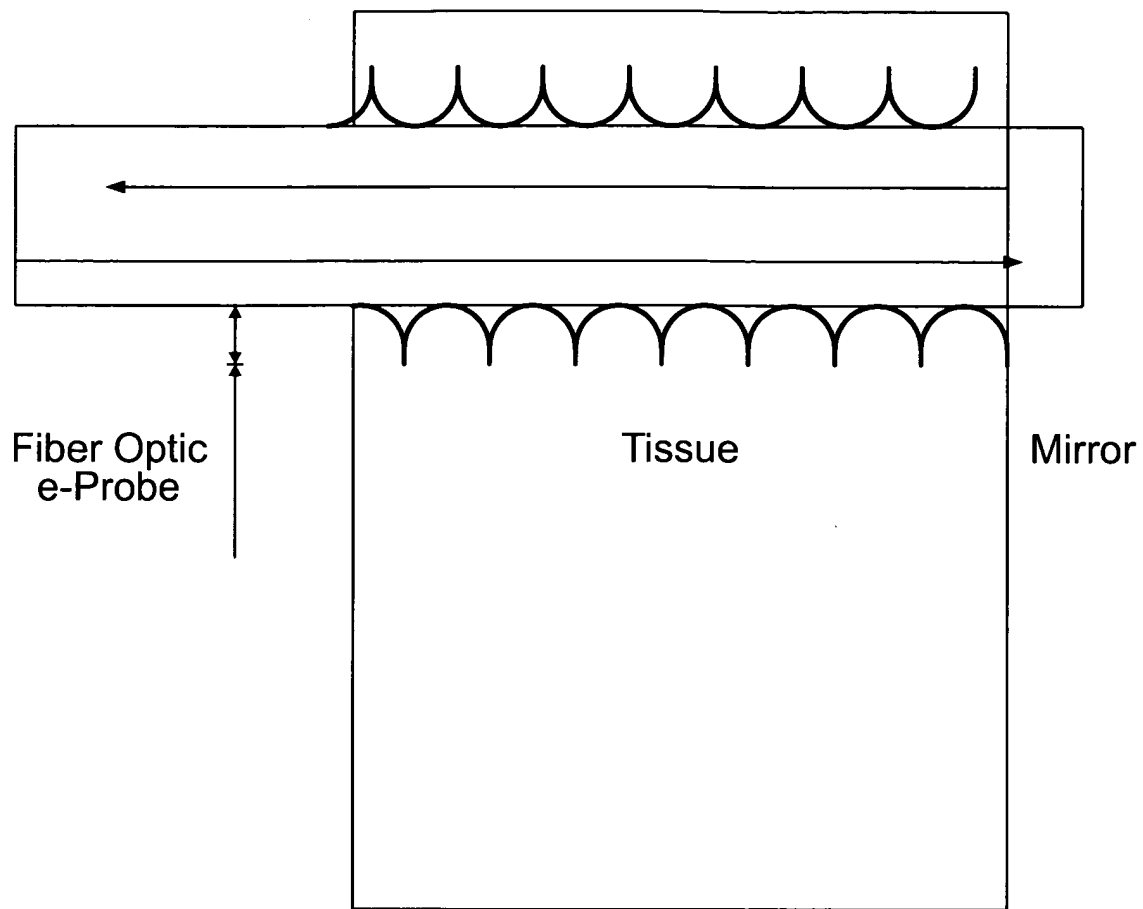
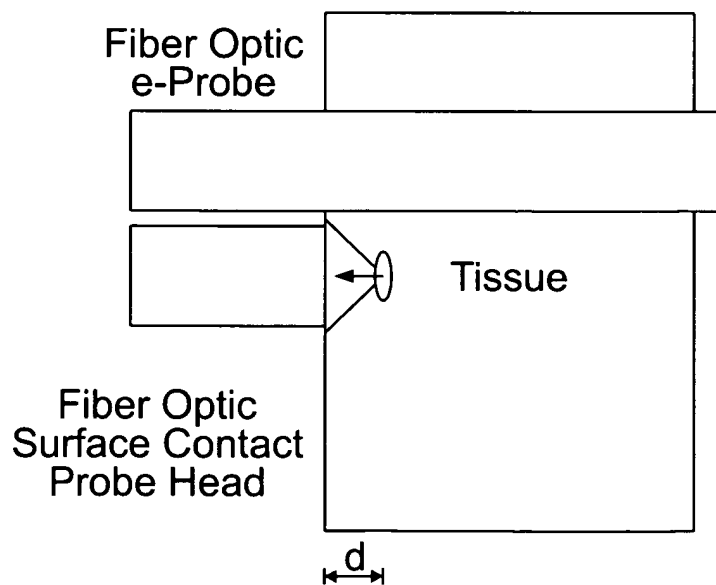


FIG. 36



E-Probe for Pierced Ears

FIG. 37A



E-Probe for Pierced Ears

FIG. 37B

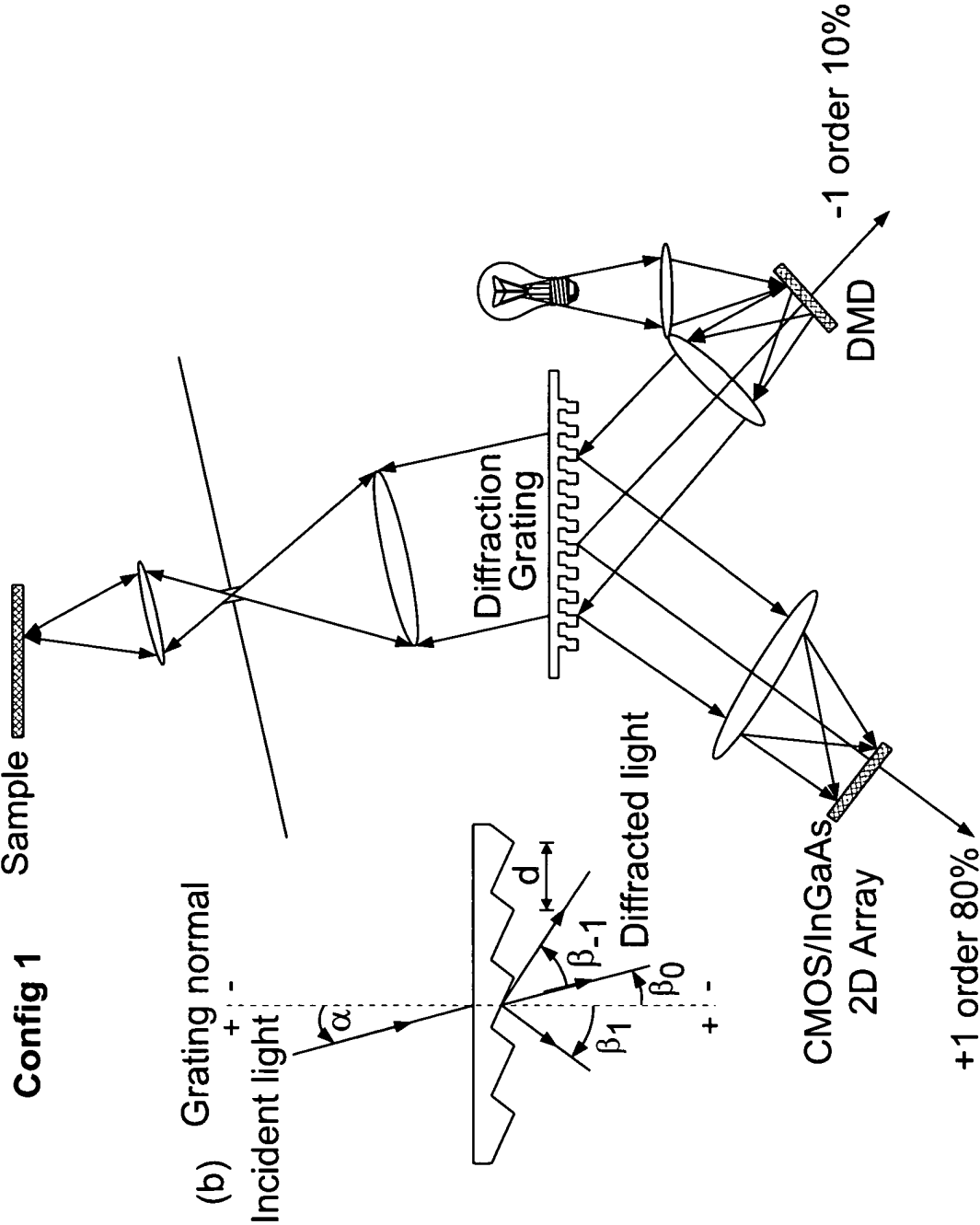


FIG. 38A

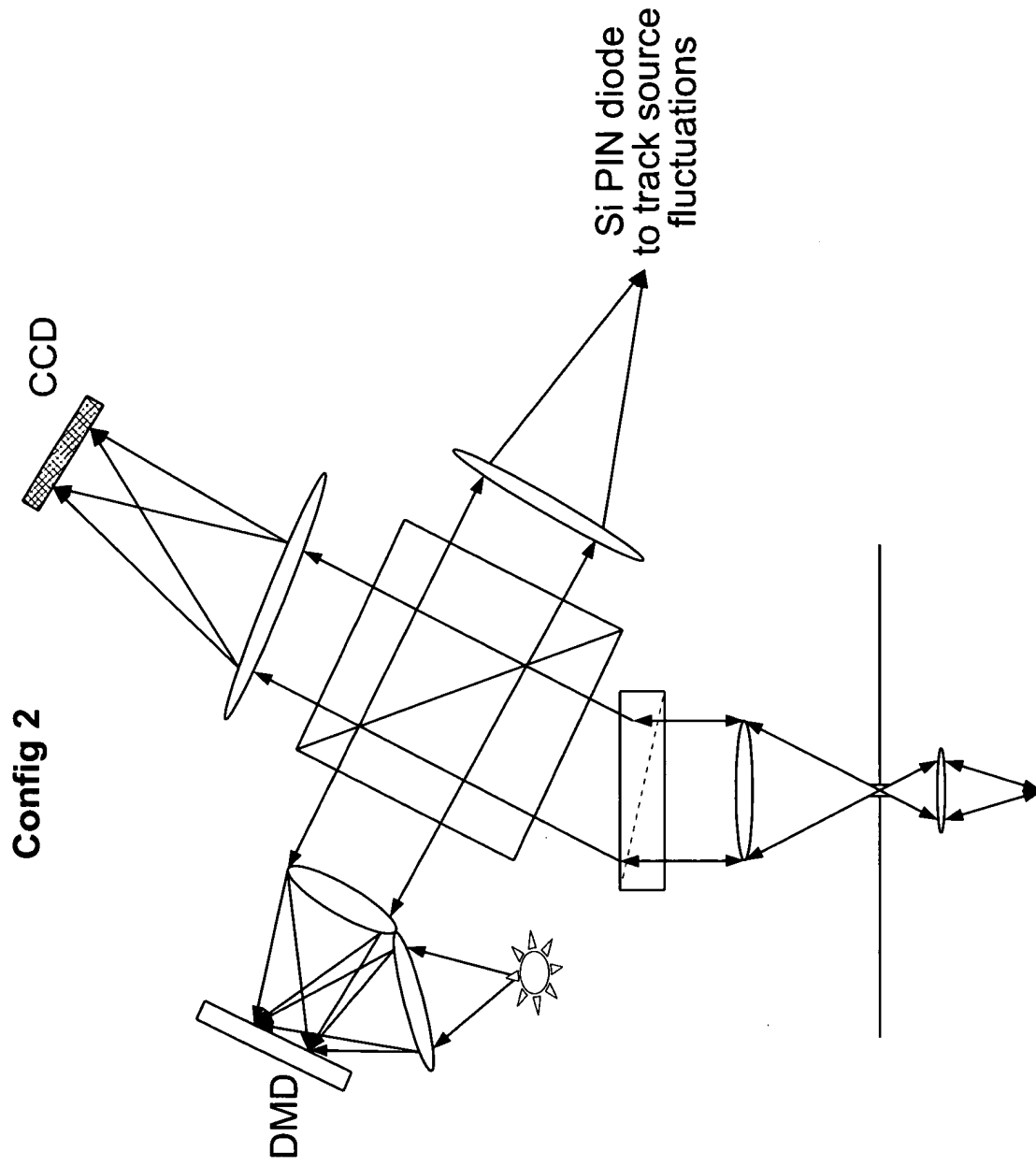


FIG. 38B

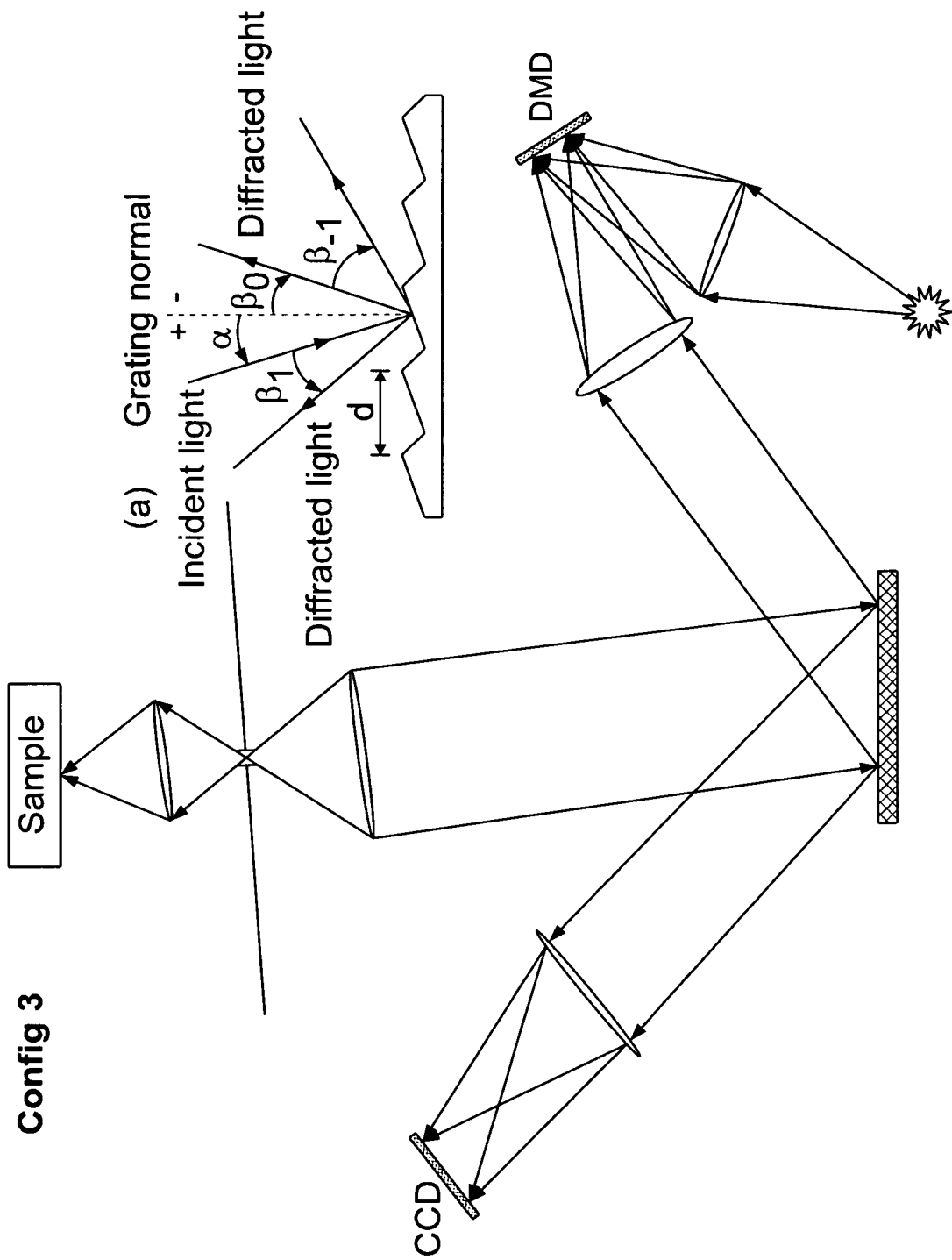


FIG. 38C

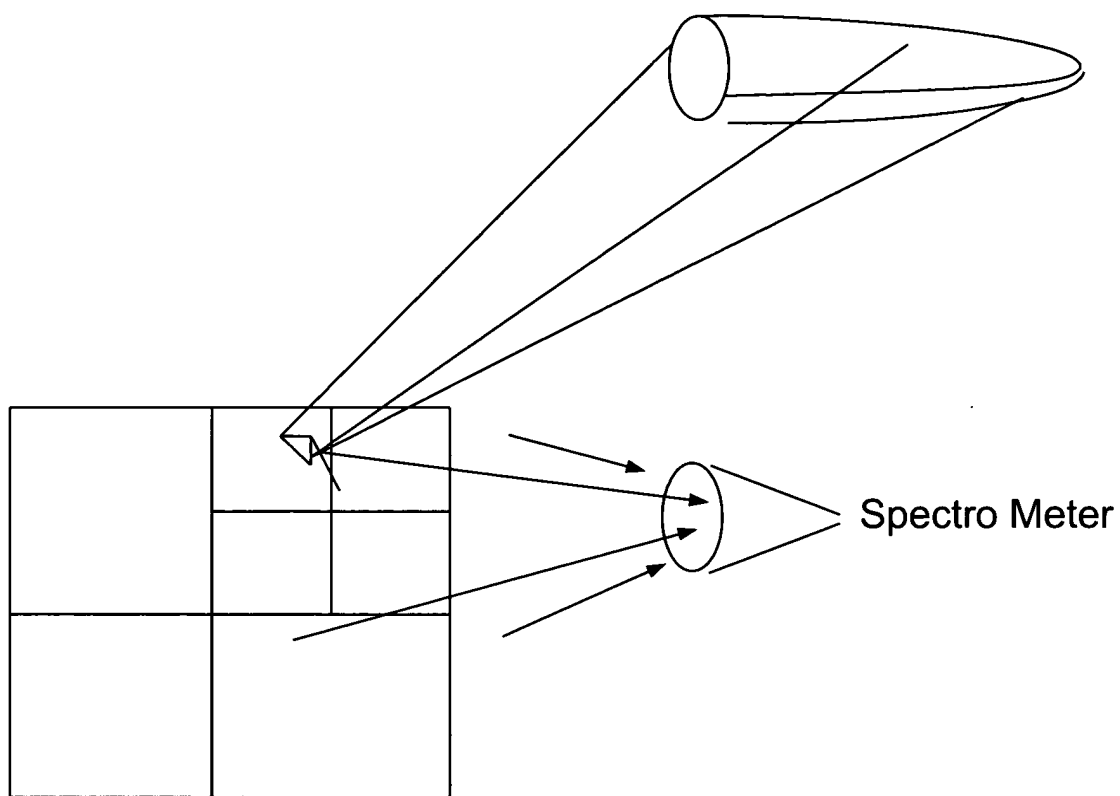


FIG. 39

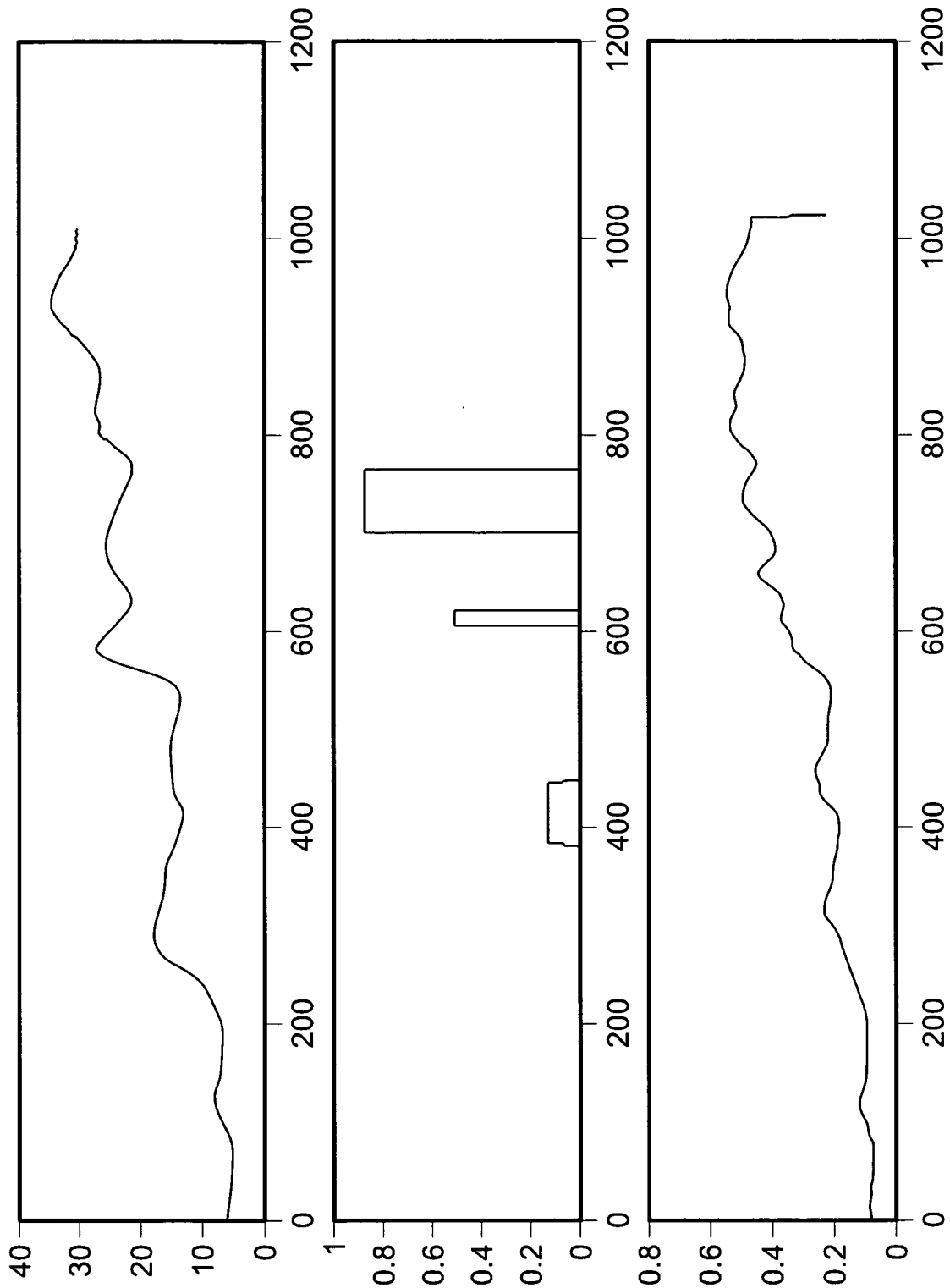


FIG. 40

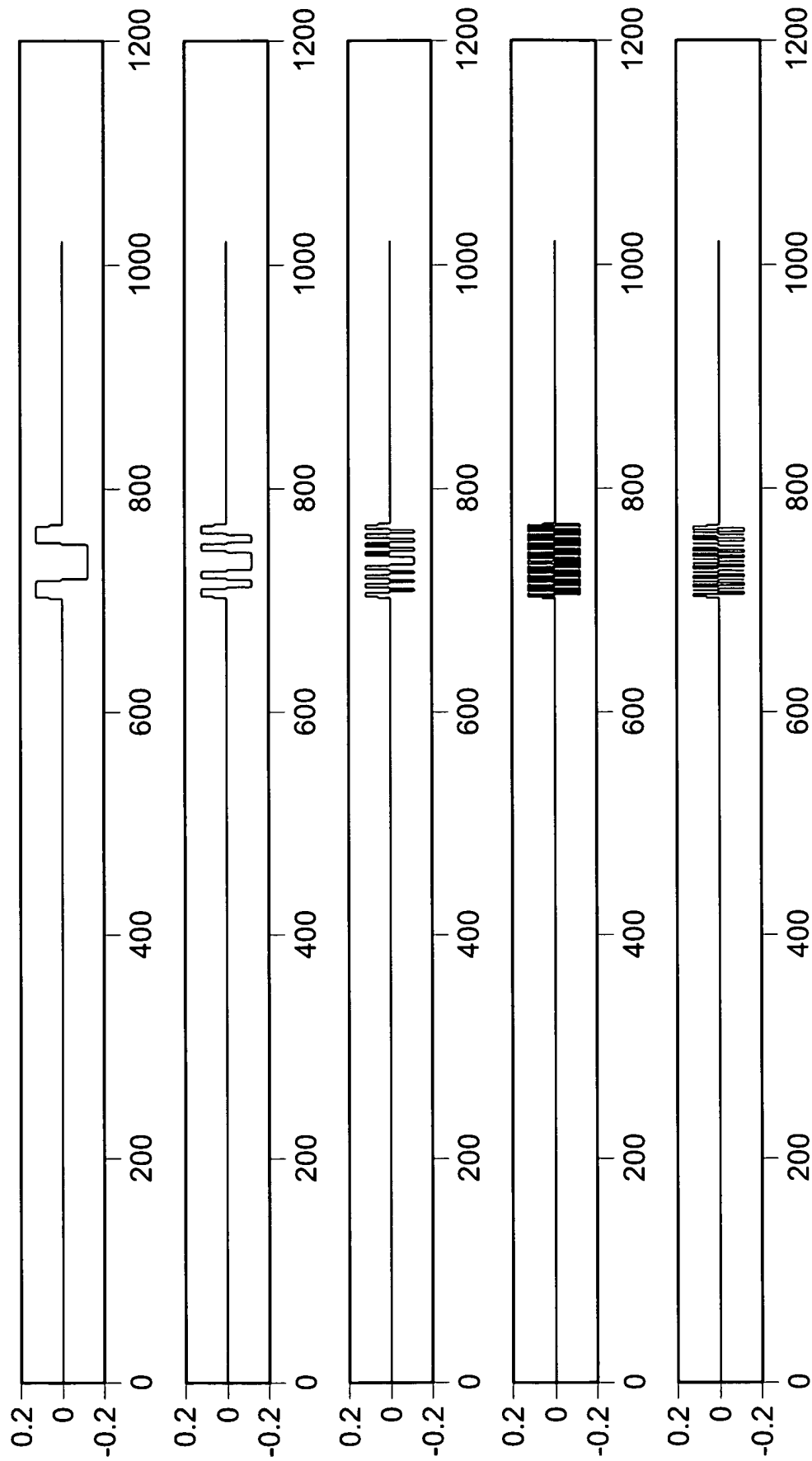


FIG. 41-1

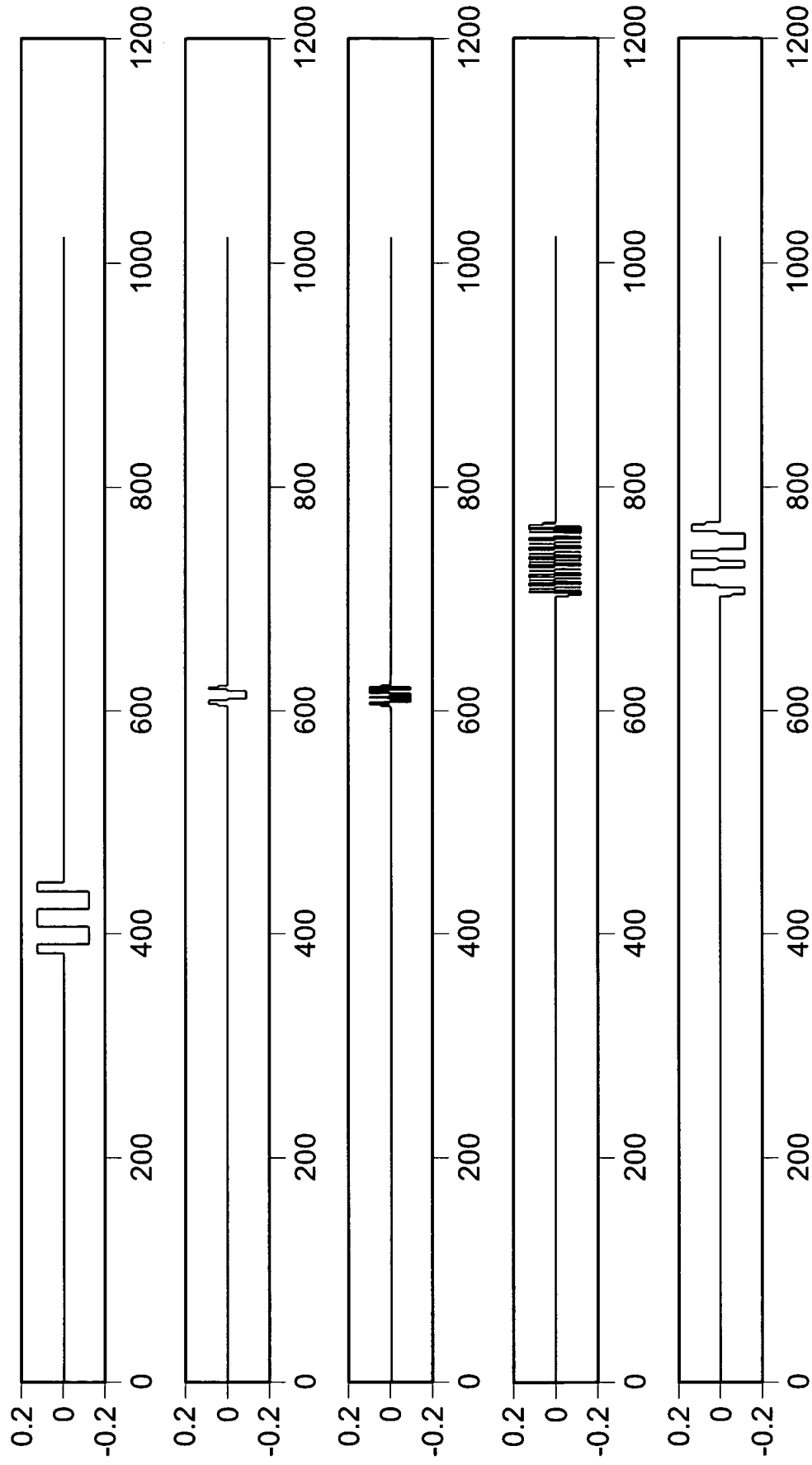


FIG. 41-2

**Typical Wheat Spectrum (Top) and Example
Feature Vector (Bottom)**

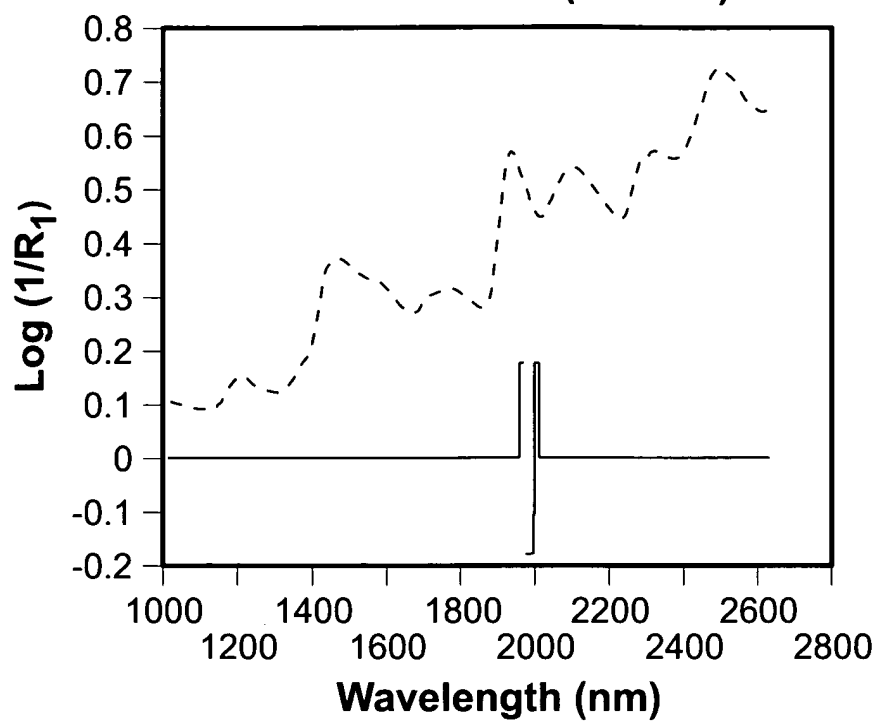


FIG. 41A

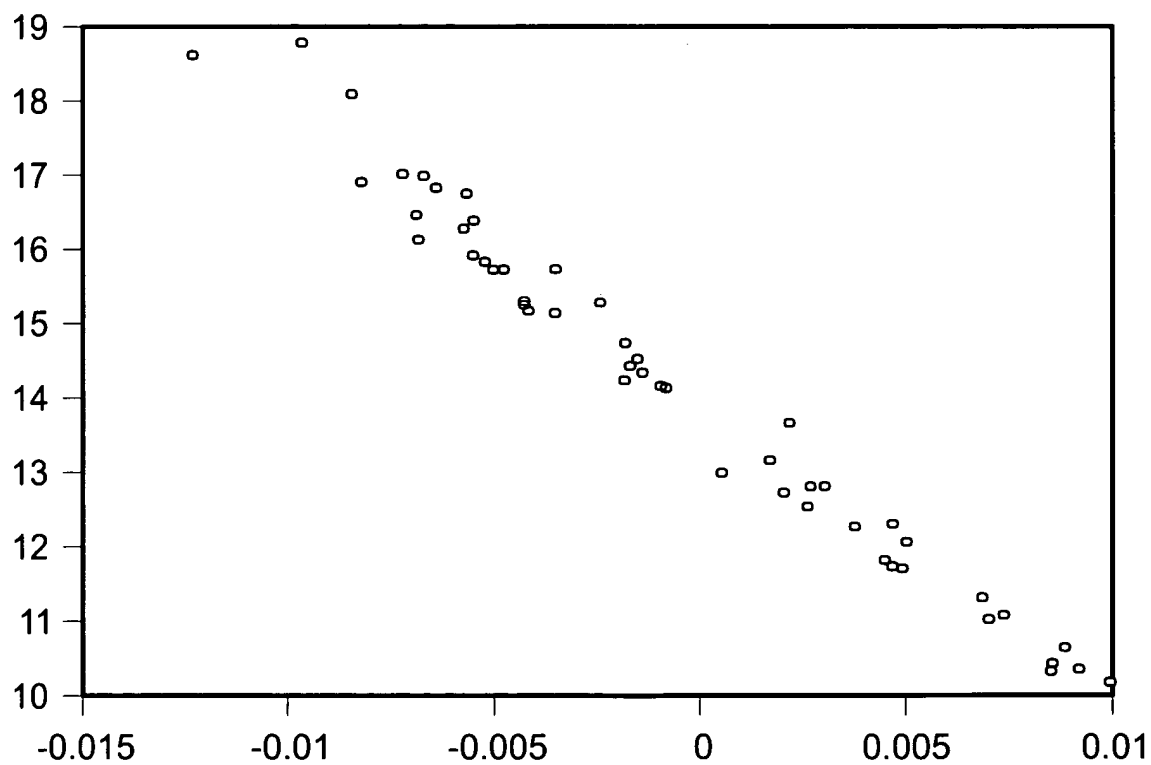


FIG. 42

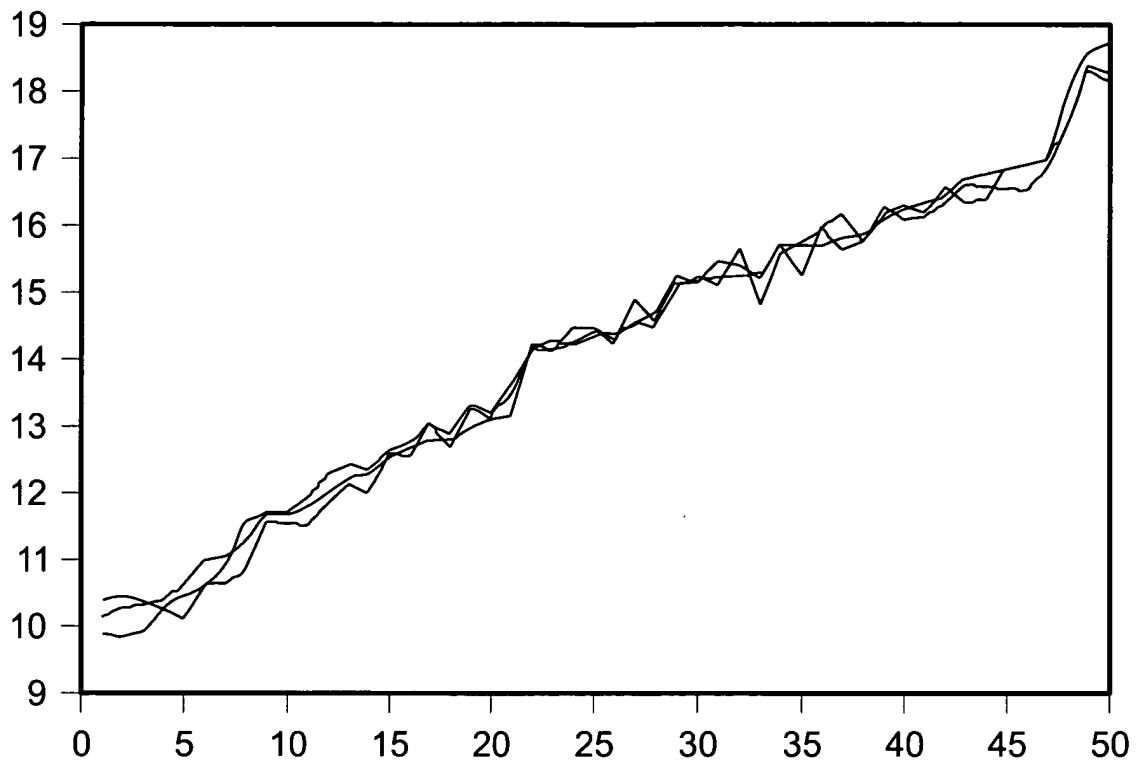


FIG. 43

**Effect of Noise on Regression Error for
Standard and Walsh Methods**

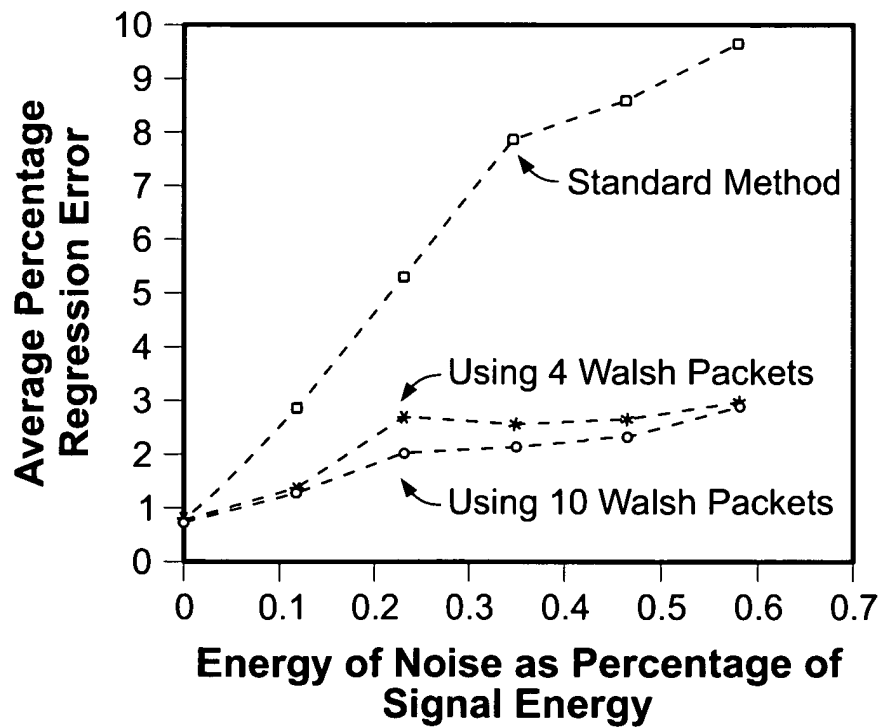


FIG. 43A

Two Spectra of the Same Weak Mercury - Argon Lamp

Detector = InGaAs

Collection Time = 25min

800 Data Points Collected

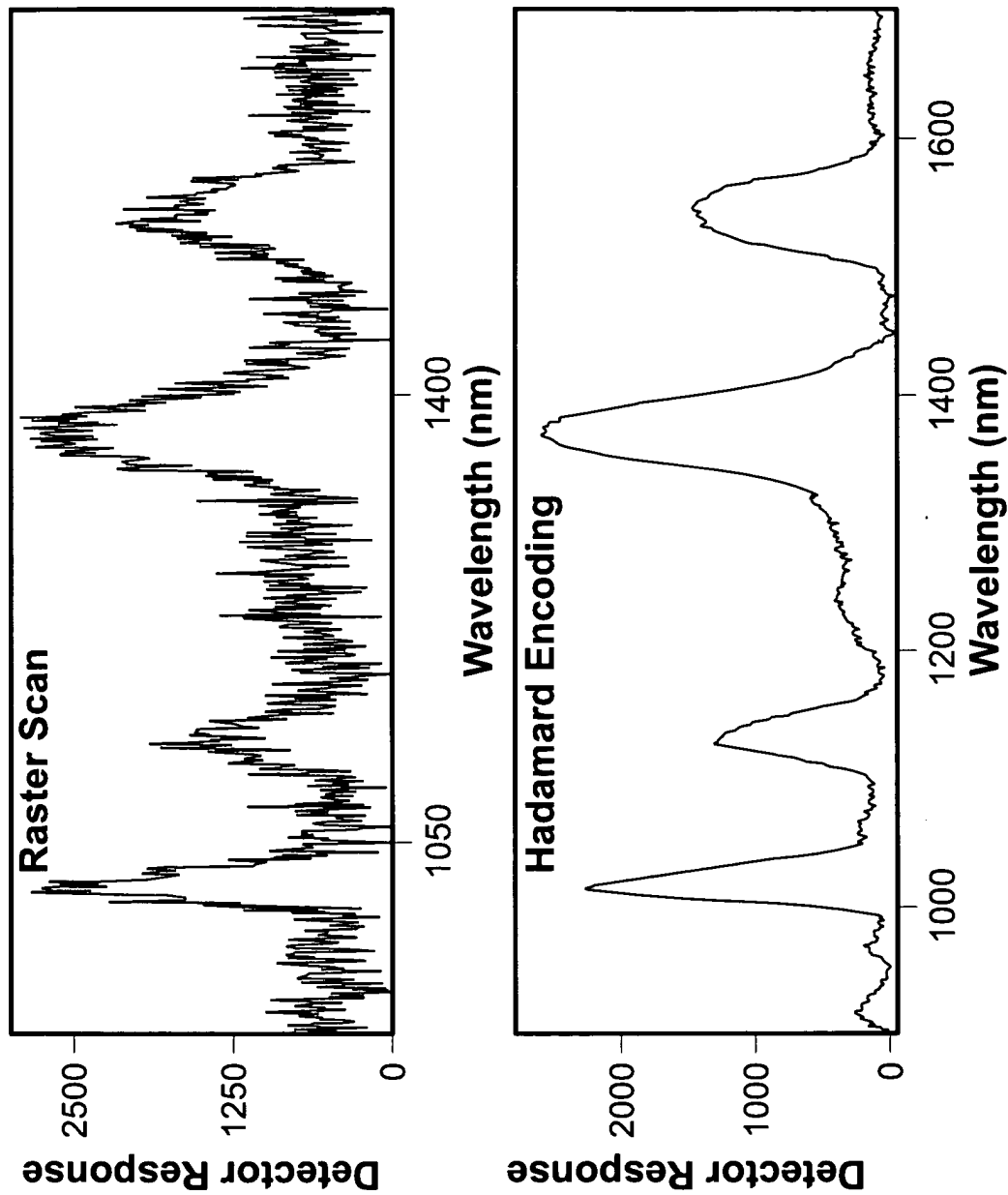
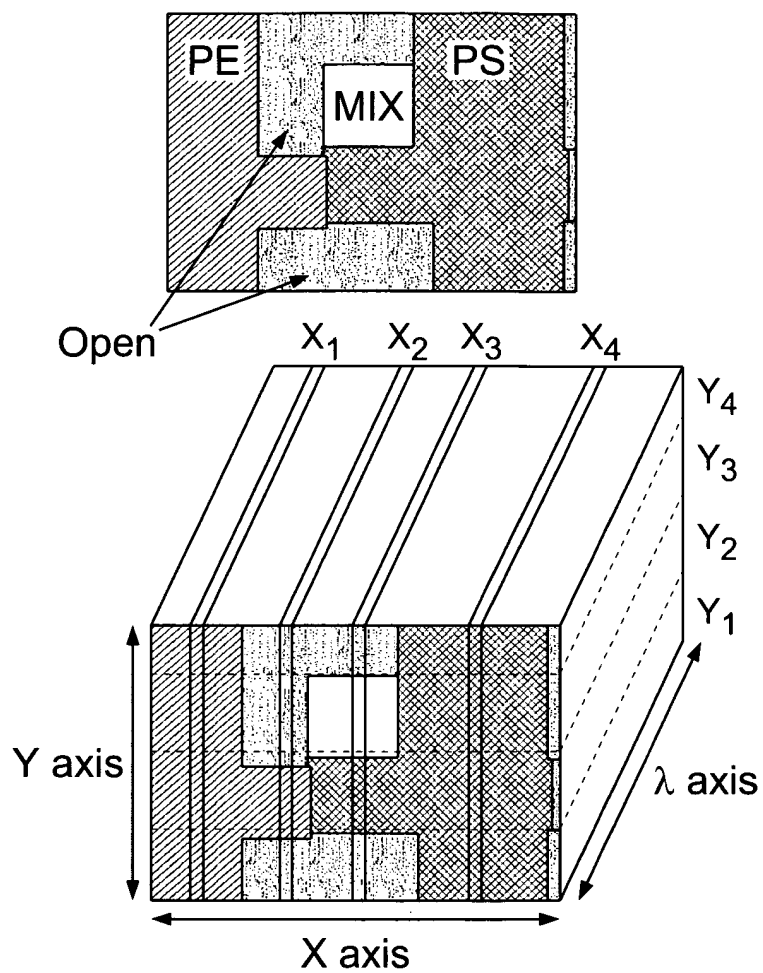


FIG. 44

Sample Data Map

Pushbroom Scan for X Spatial Dimension

FIG. 45

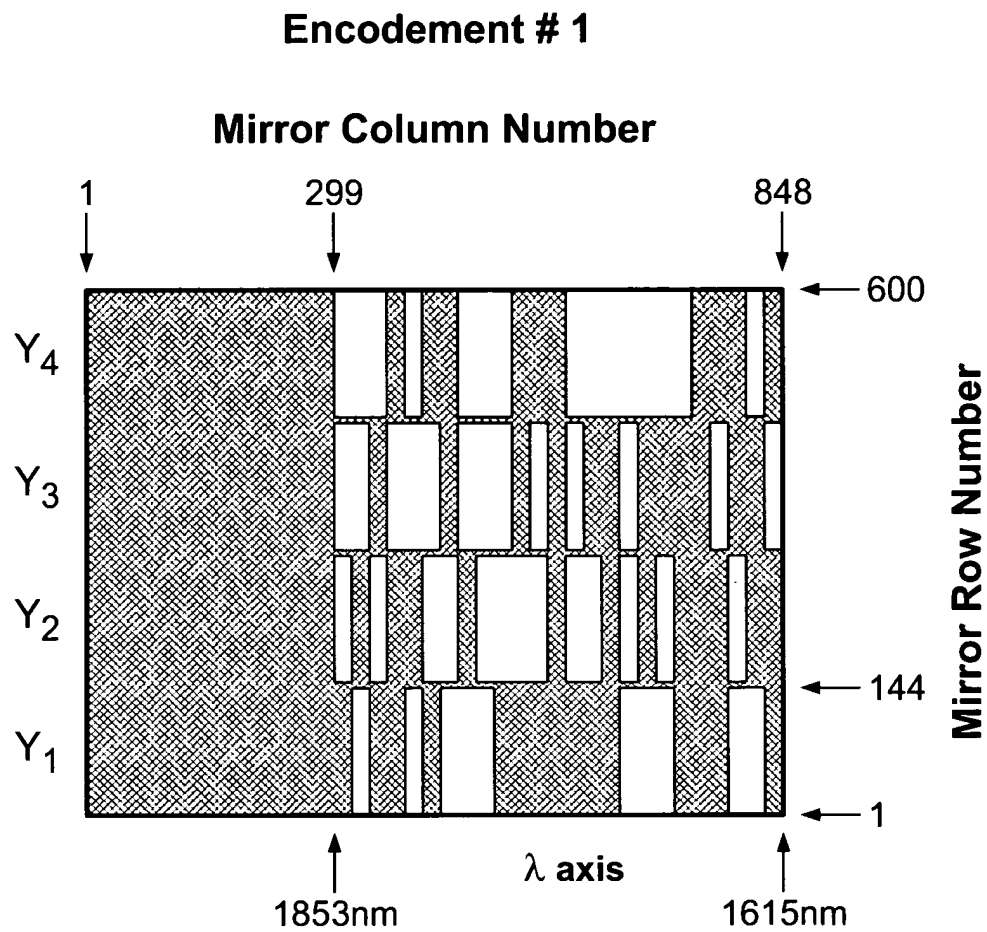


FIG. 46

DMA Programmable Resolution Using 1951 USAF Resolution Target

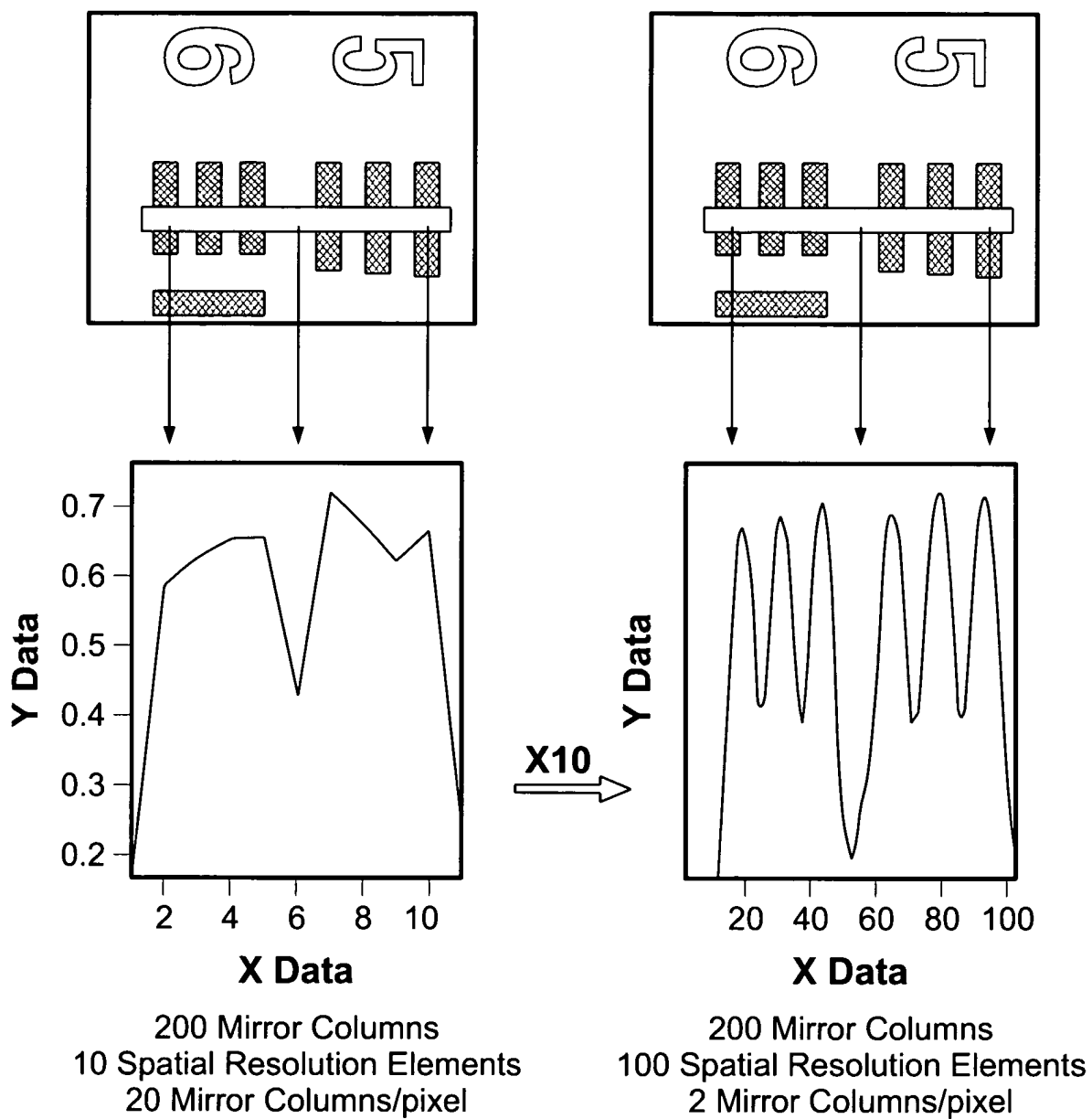
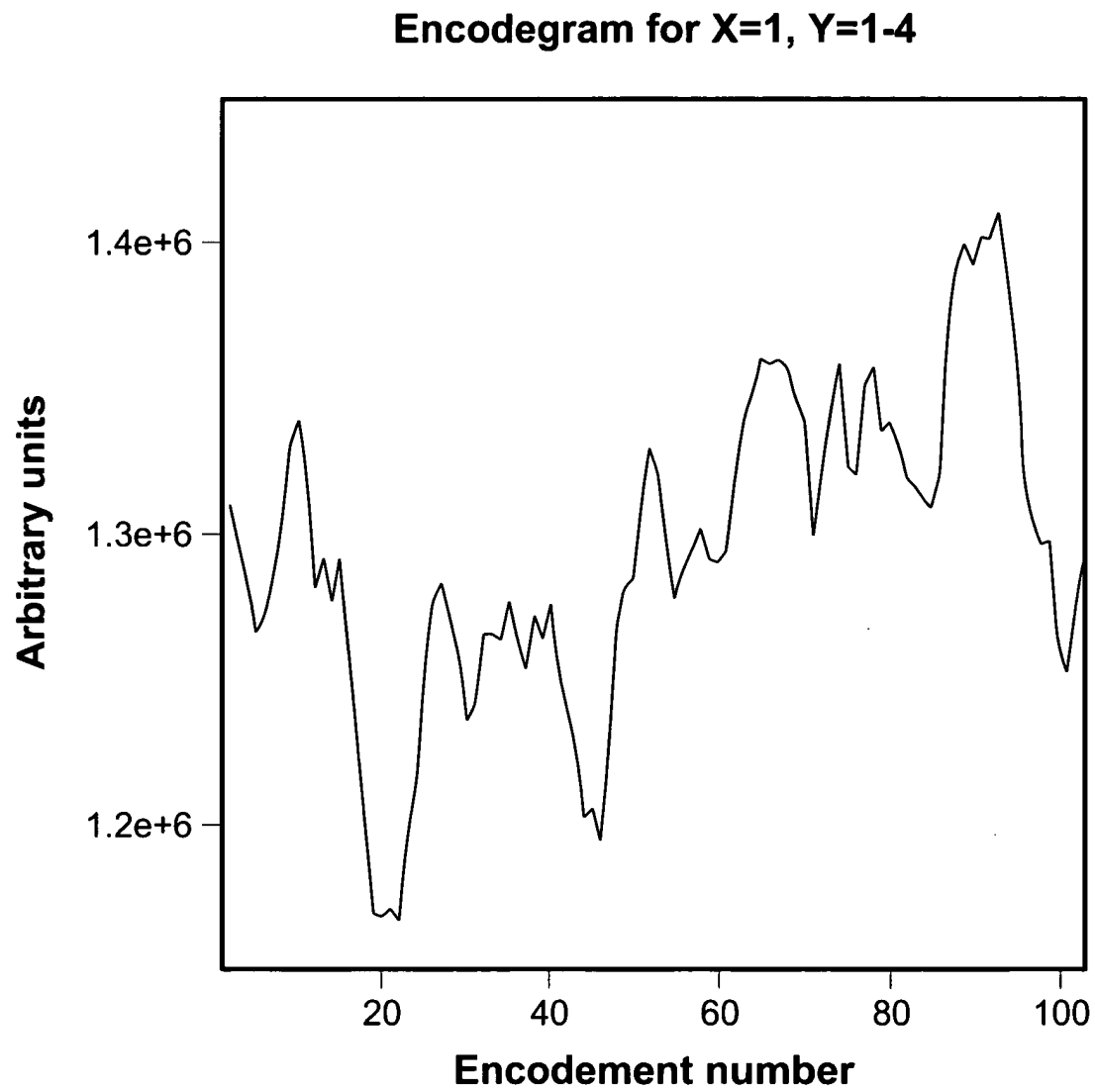


FIG. 47

**FIG. 48**

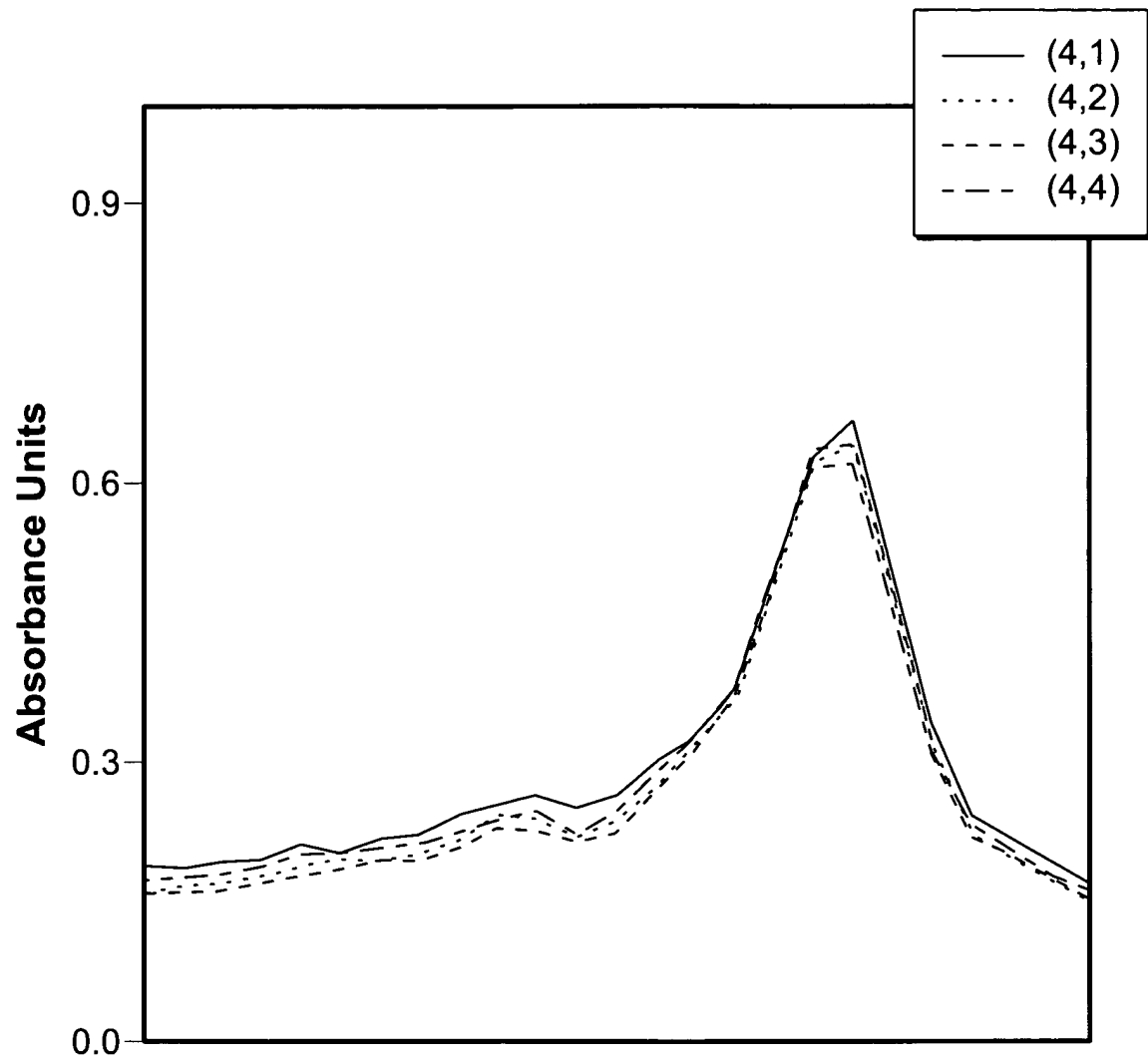


FIG. 49A

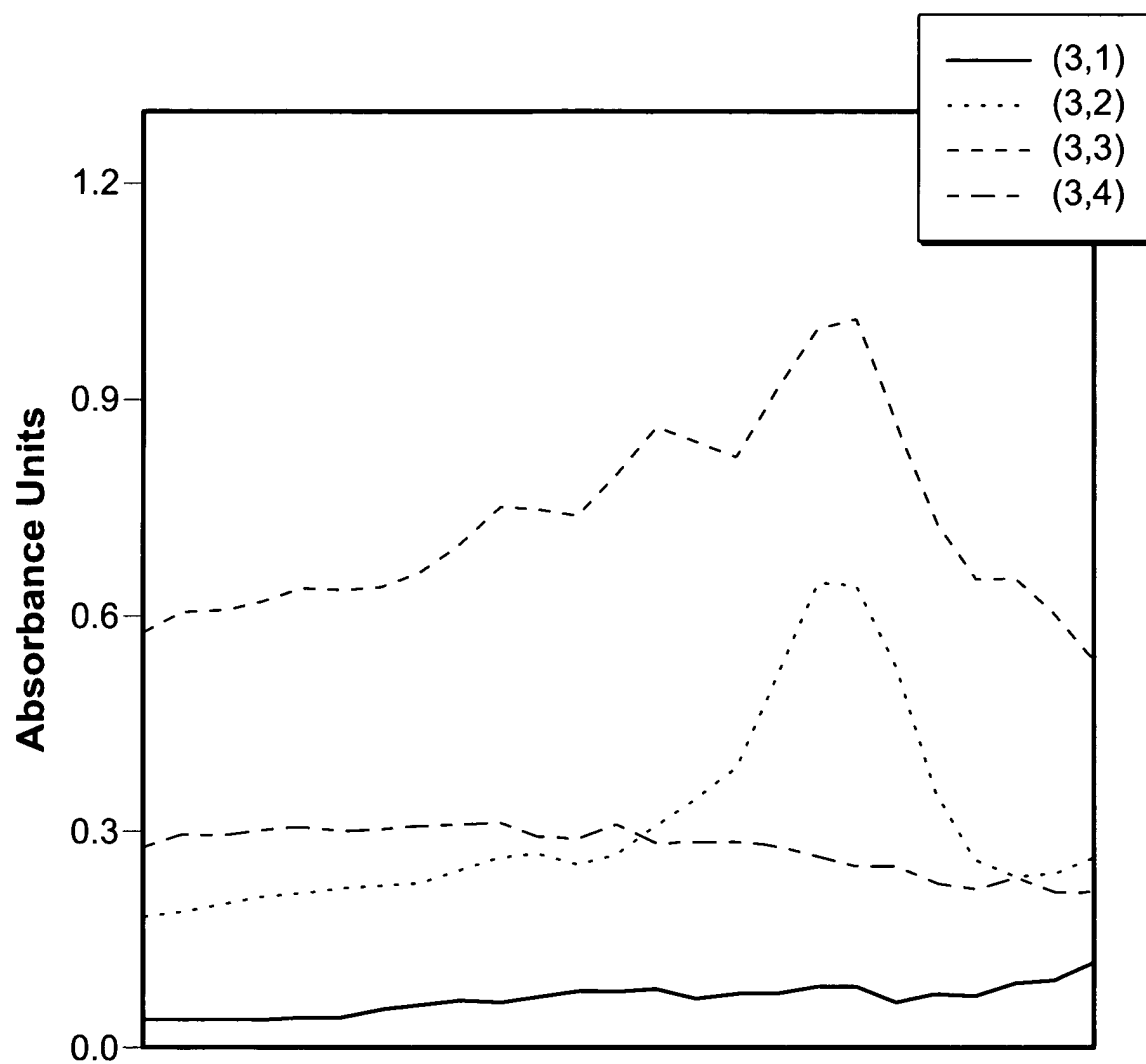


FIG. 49B

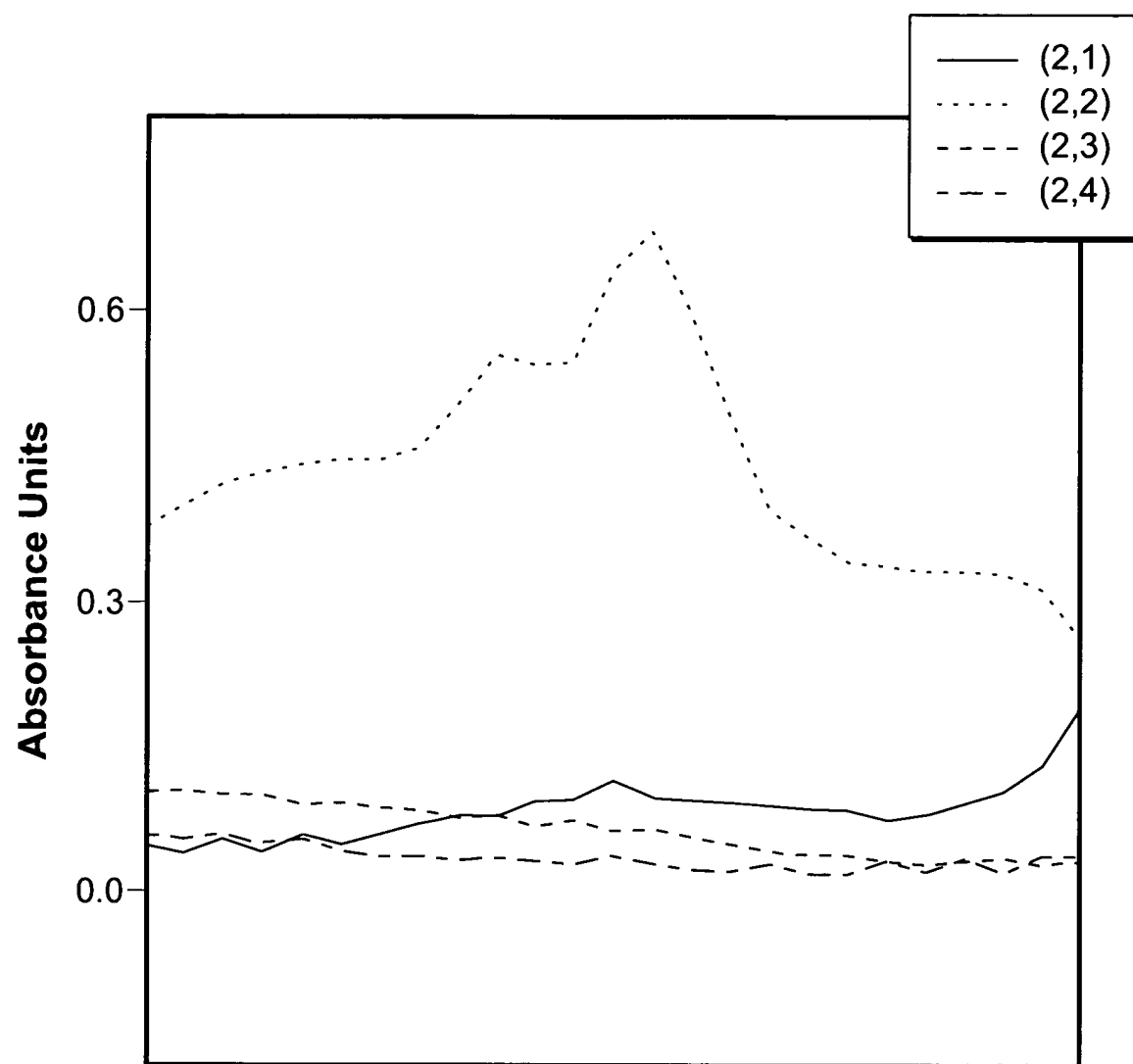


FIG. 49C

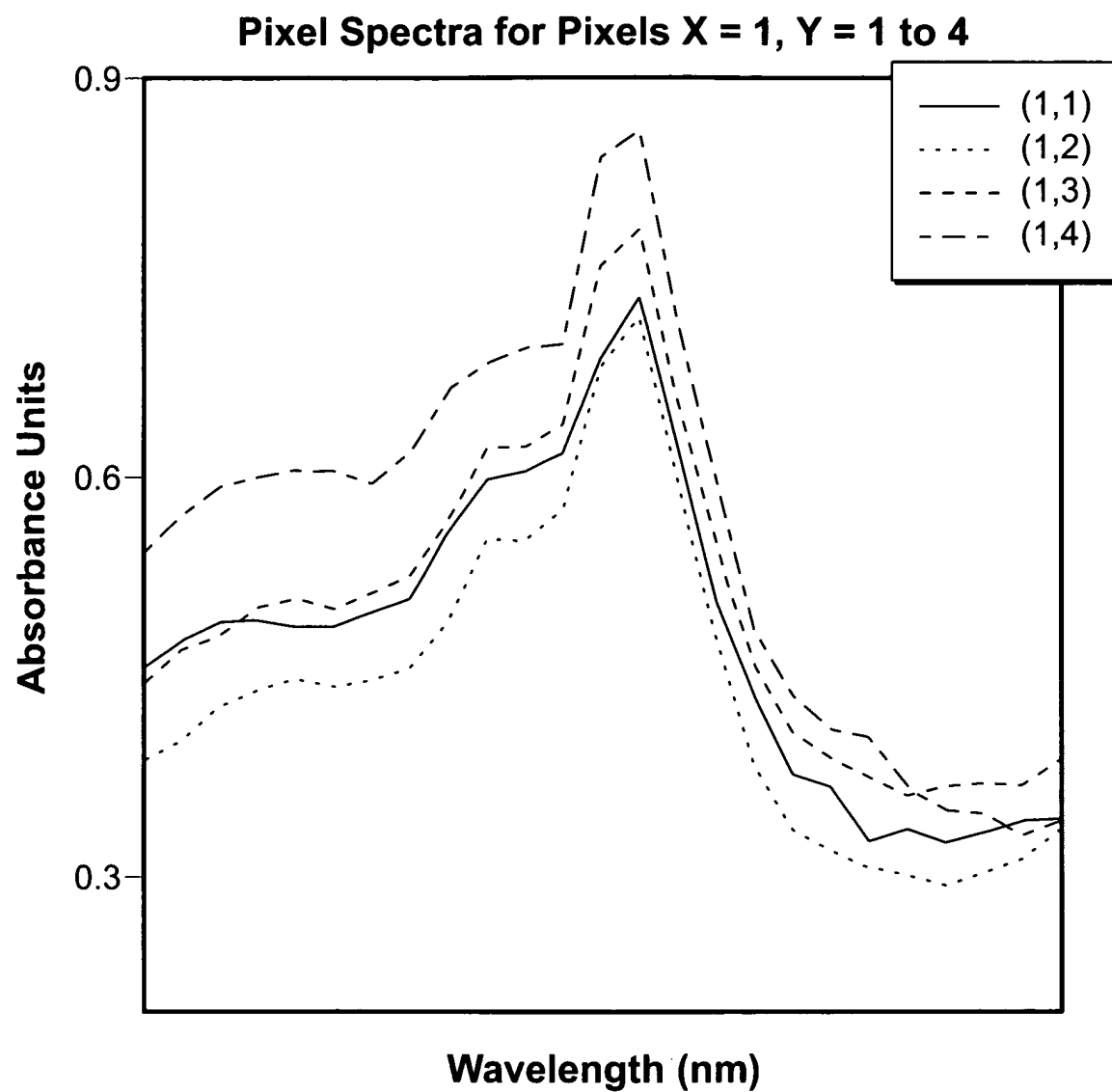


FIG. 49D

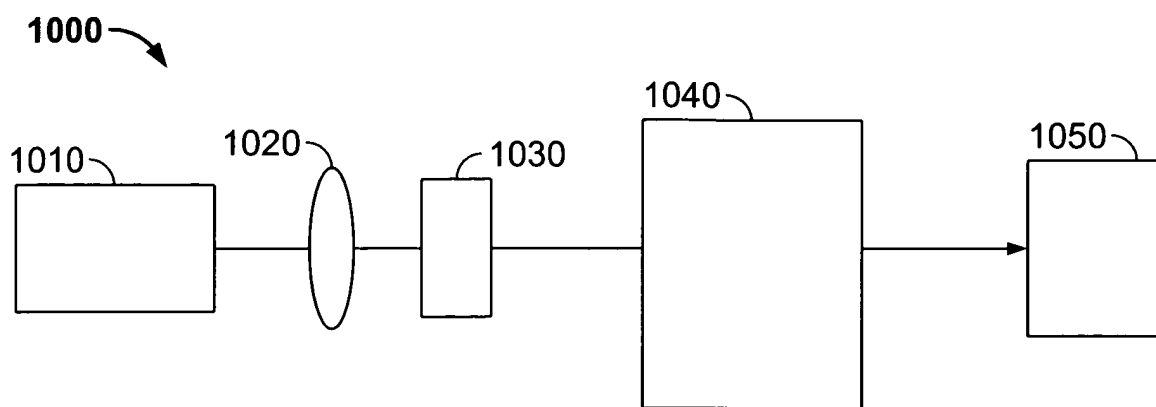


FIG. 50

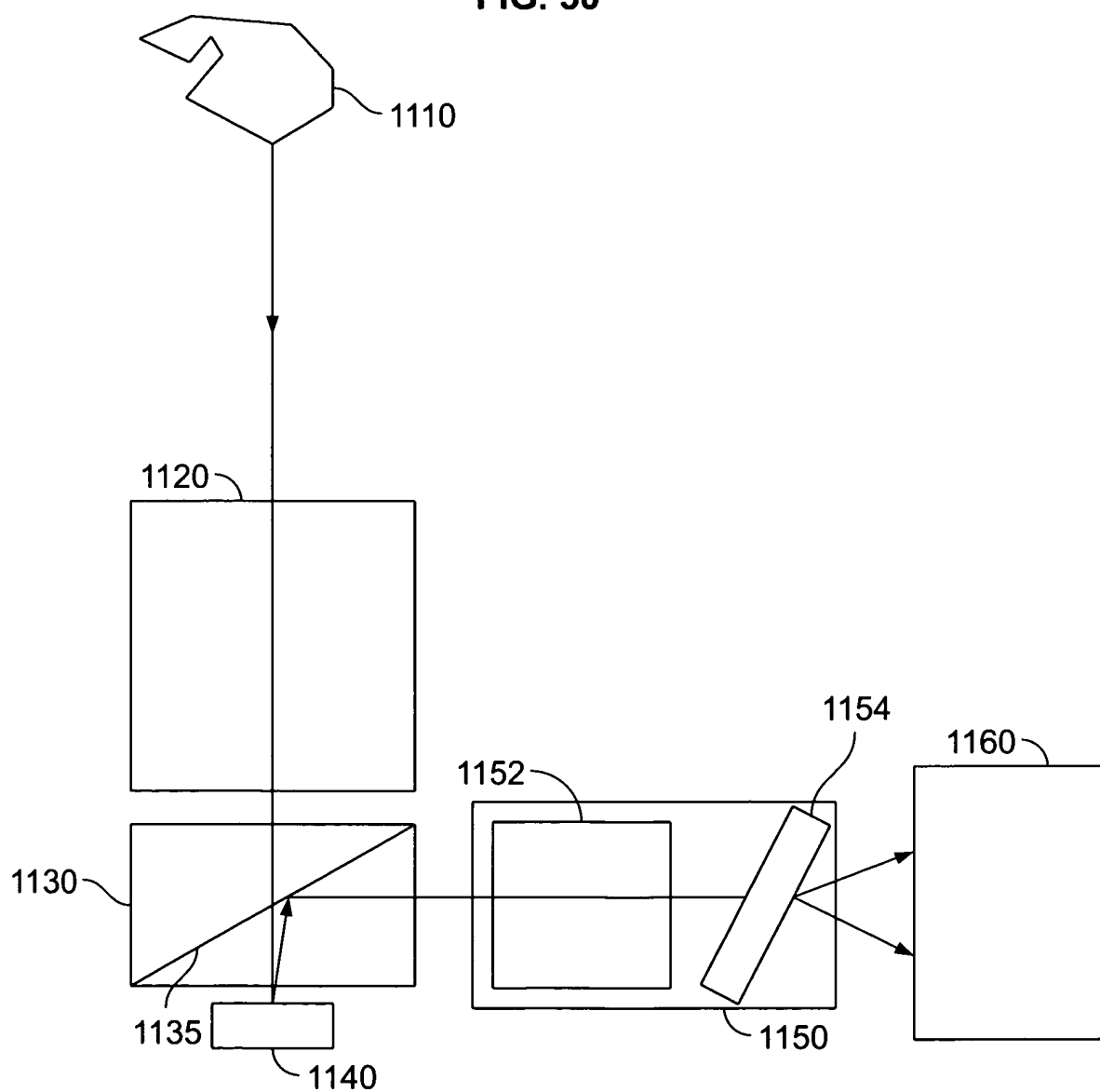


FIG. 51

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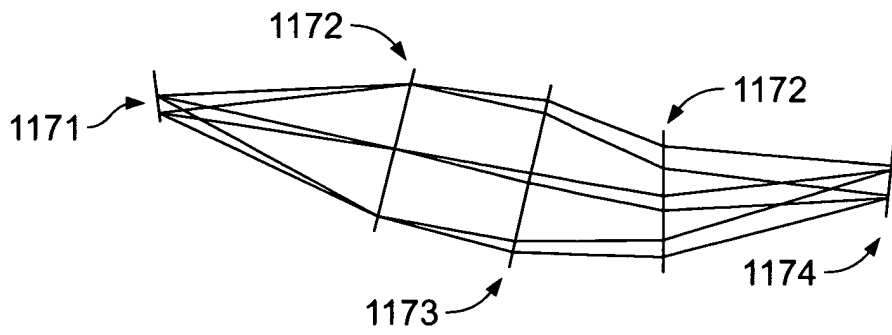
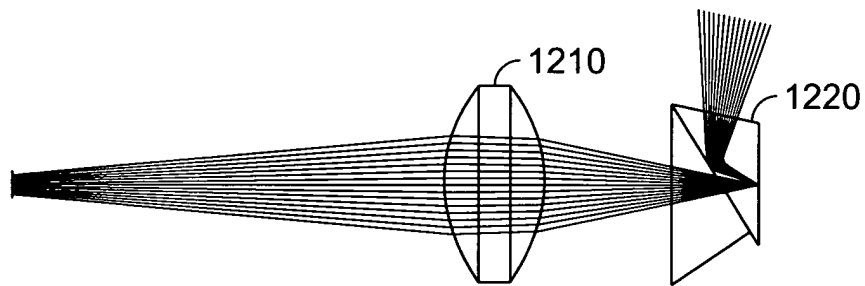


FIG. 52



F2, 72 Operation PSS NIR TIR 10 Degree DMD

FIG. 53

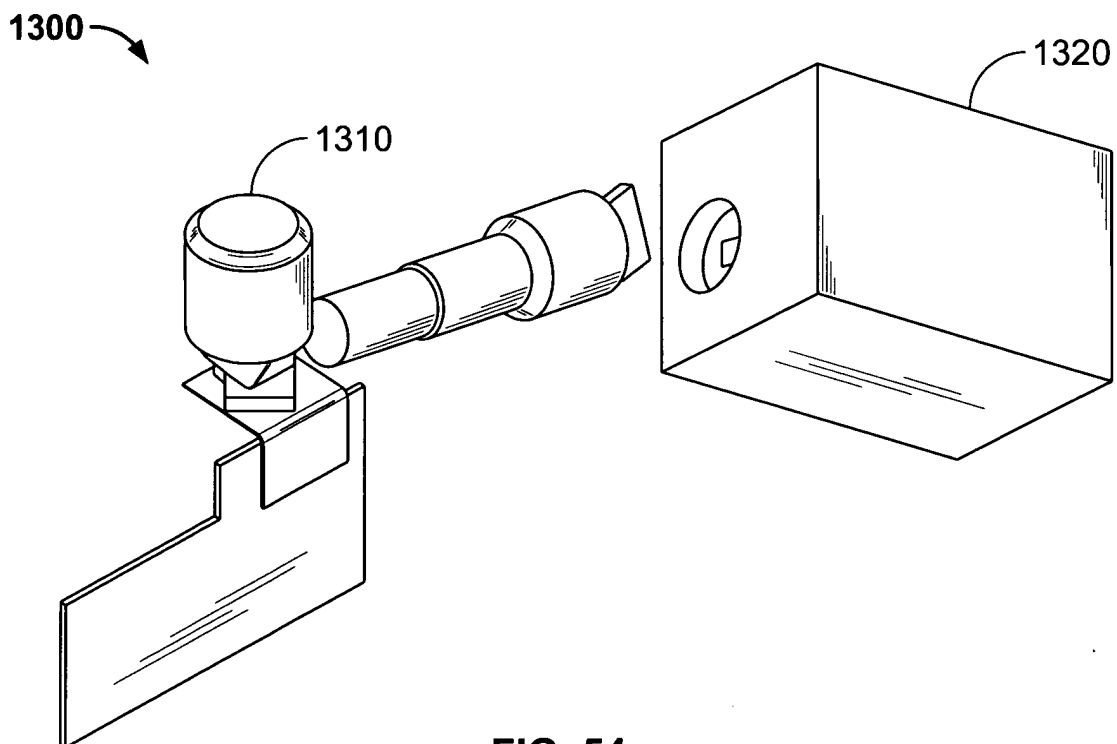


FIG. 54

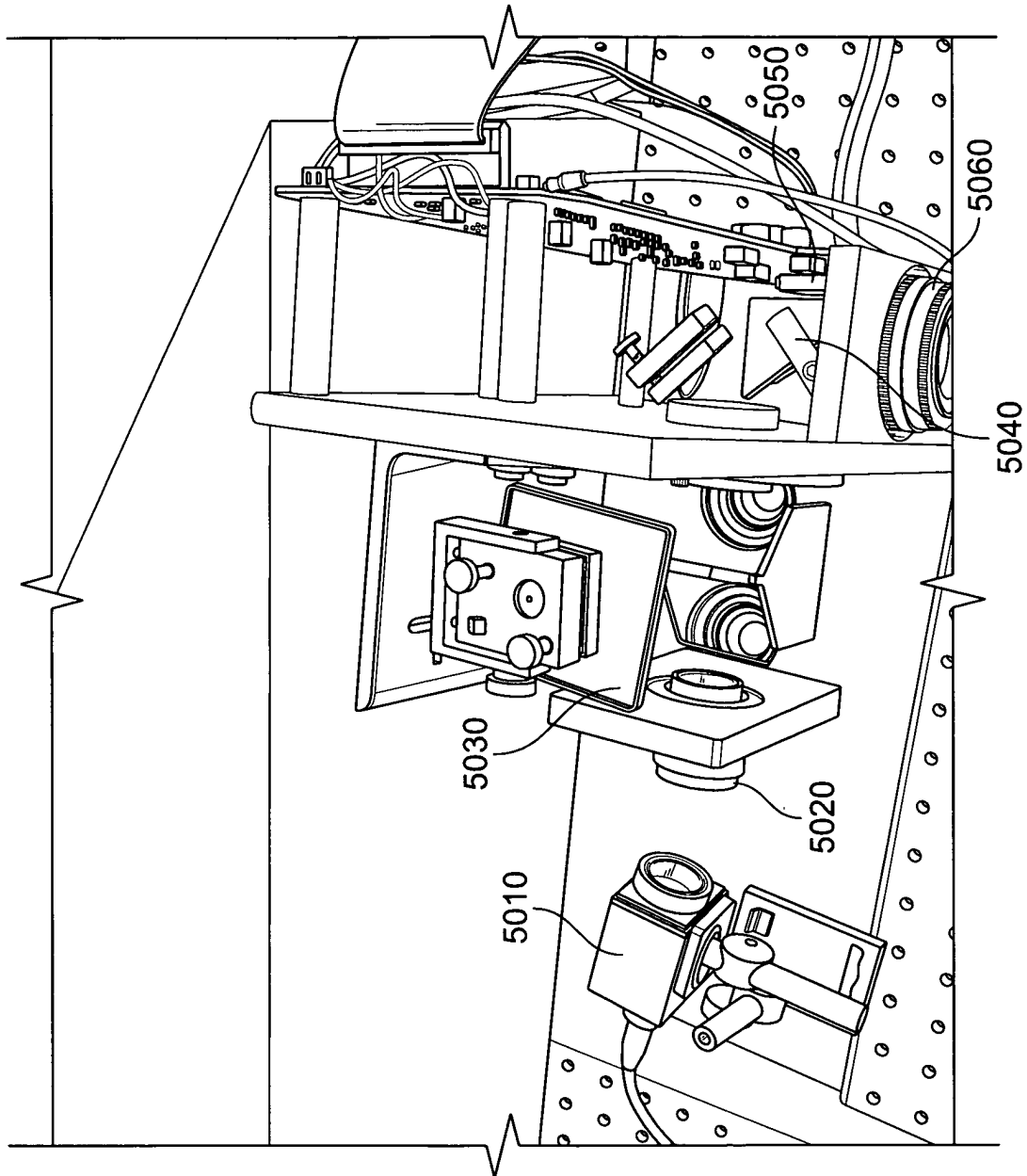


FIG. 55

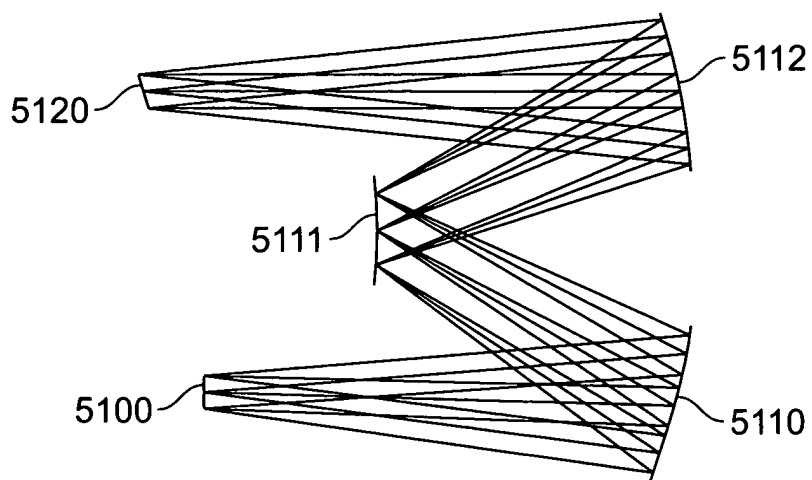


FIG. 56

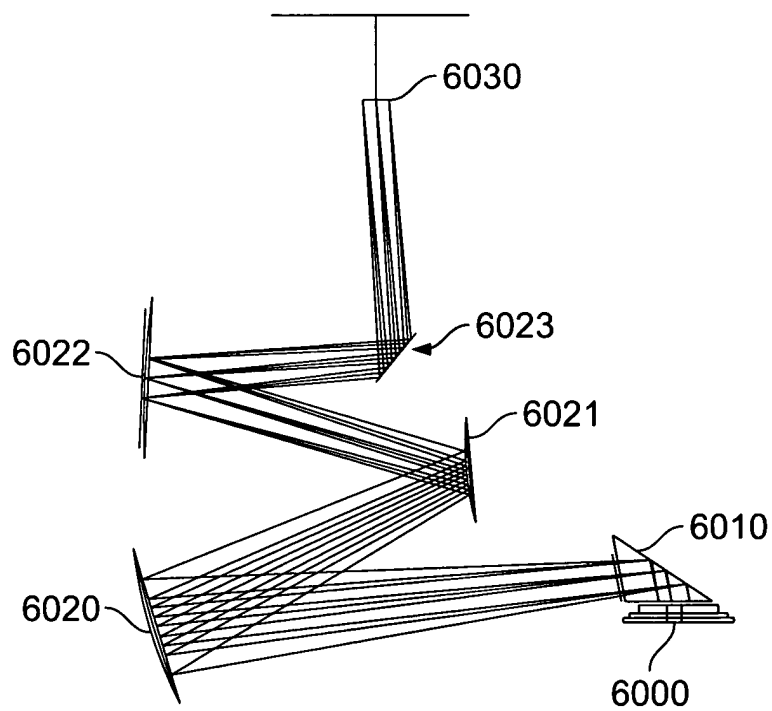


FIG. 57

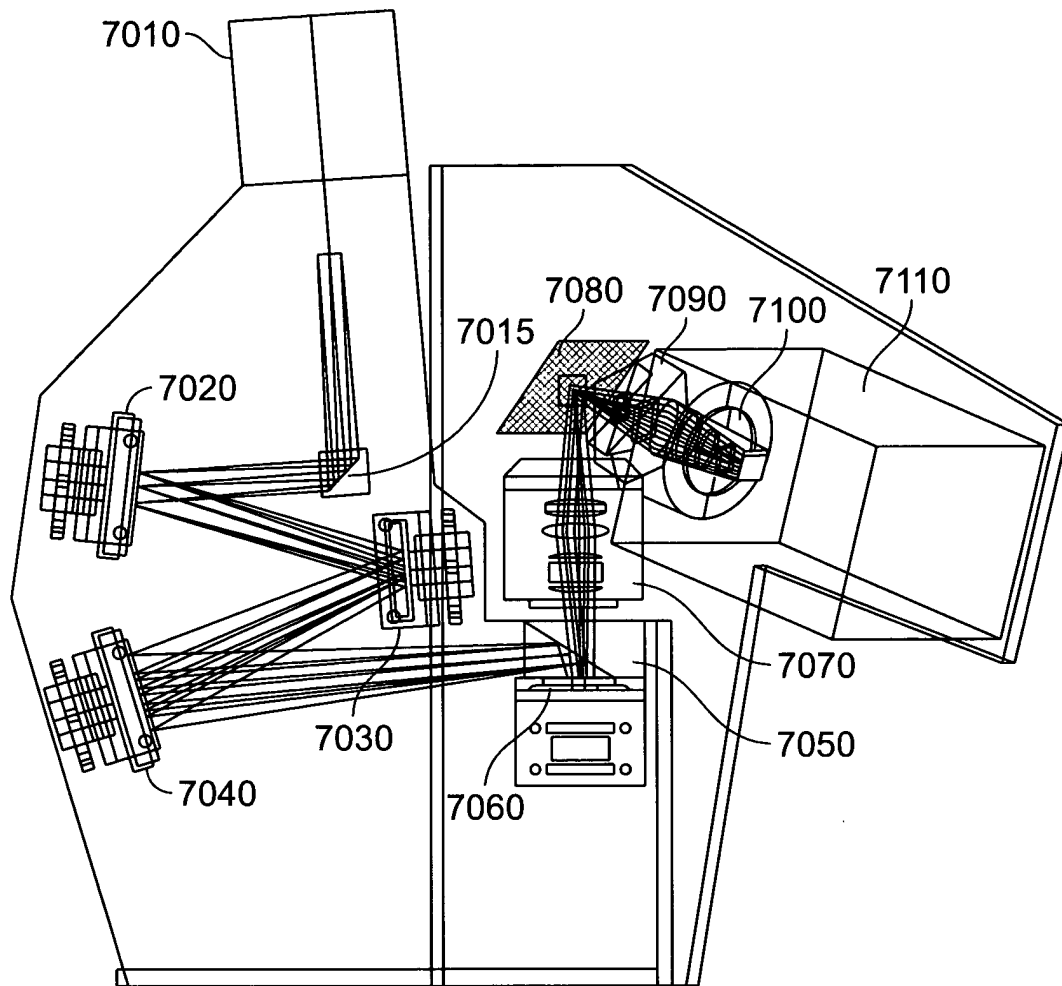


FIG. 58

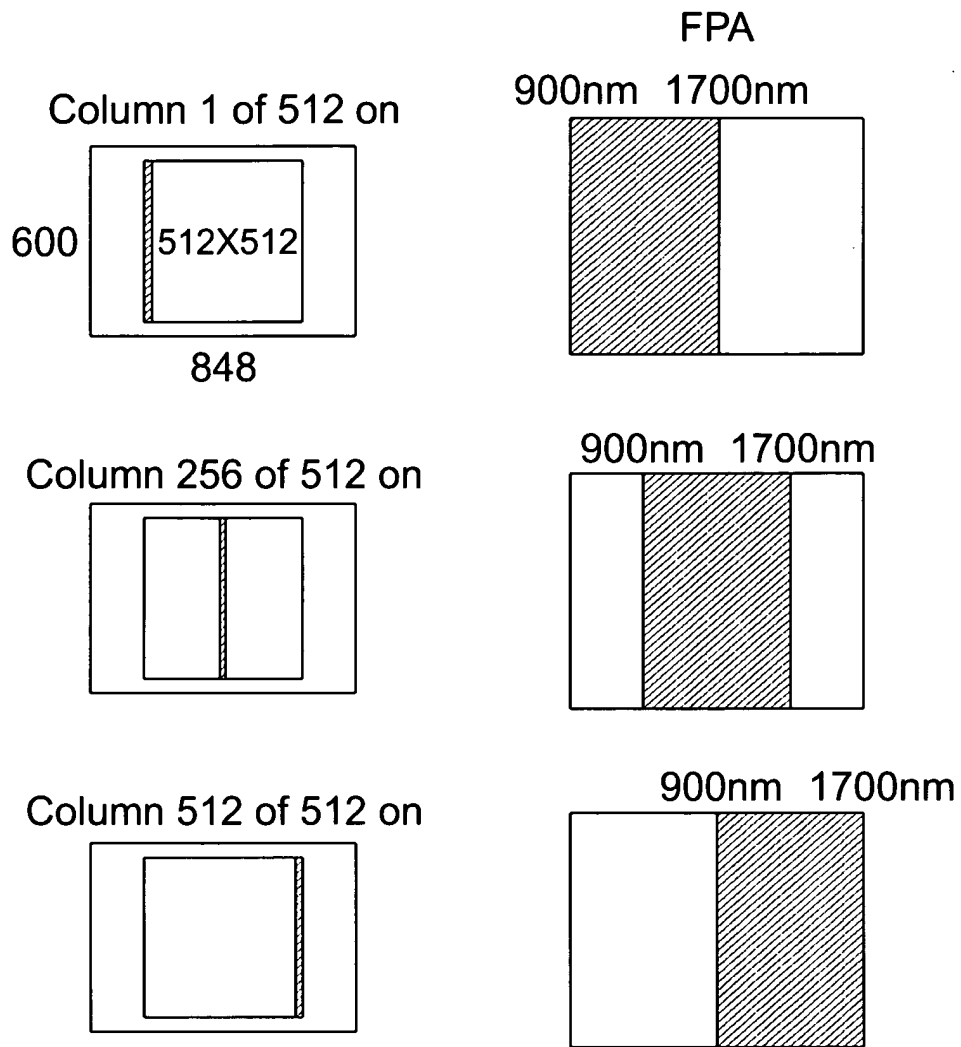


FIG. 59

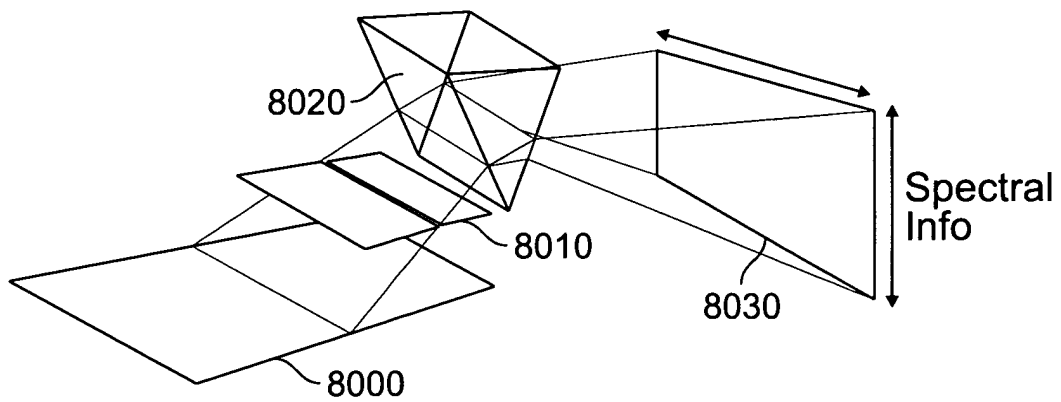


FIG. 60